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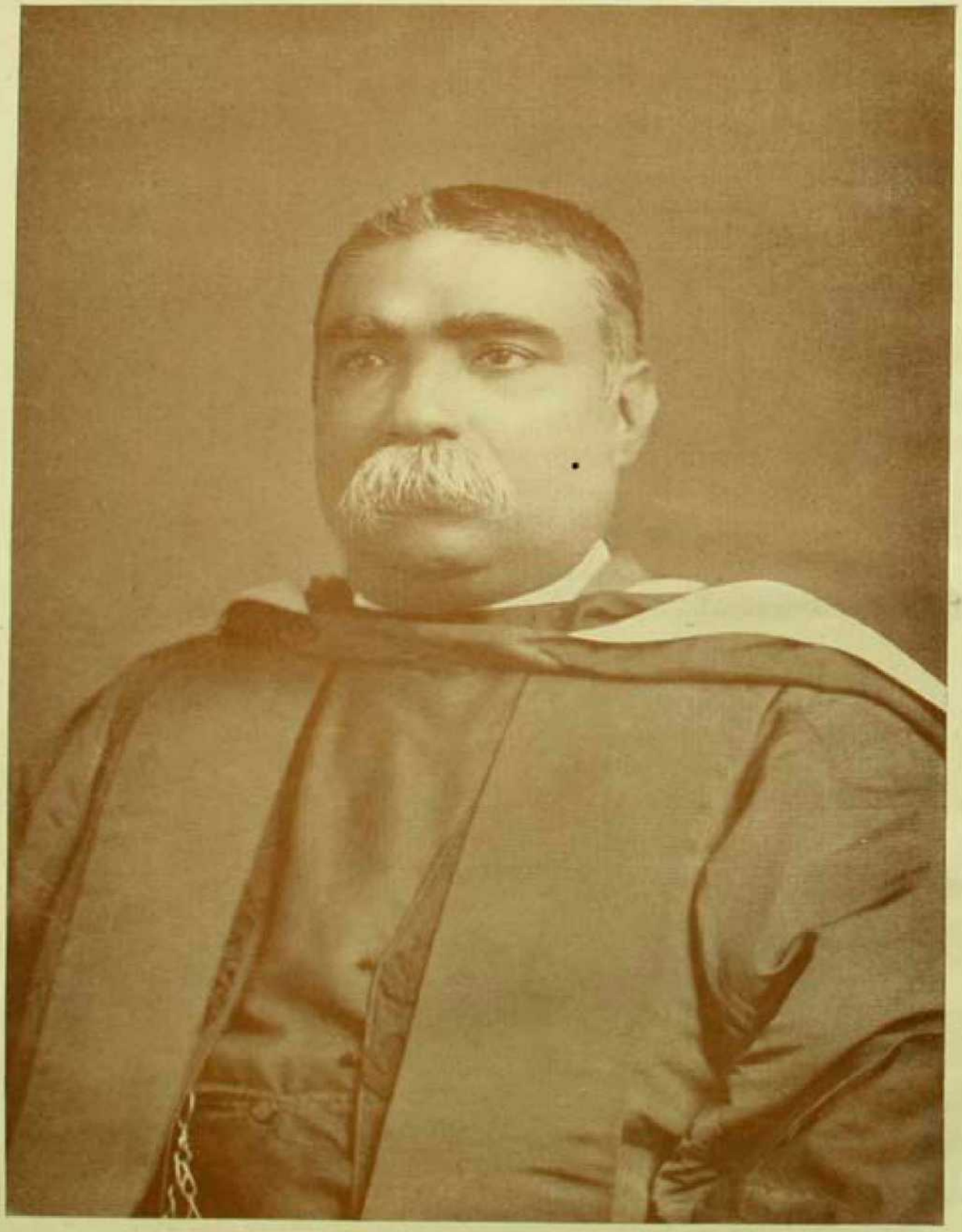

SIR ASUTOSH MOOKERJEE

Vice-Chancellor (1906-14, 1921-23) and President, Council of Post-Graduate Teaching in Arts (1917-24)

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DEVELOPMENT OF POST-GRADUATE STUDIES IN ARTS AND LETTERS IN THE UNIVERSITY OF CALCUTTA

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PROFESSOR P. N. BANERJEE
Vice-Chancellor and President, Council of Post-Graduate Teaching in Arts

DEVELOPMENT OF POST-GRADUATE STUDIES

University under the Act of 1857—a mere examining body

The organisation of post-graduate studies and research under the aegis of the University dates back to the late first decade of this century. The Act of Incorporation of 1857, which governed the activities of the University from its inception to the date of the first operation of the Regulations framed under the Indian Universities Act of 1904, limited such activities to the affiliation of suitable educational institutions and the testing of candidates presented by them at different University examinations. For fifty years the University was thus a merely affiliating and examining body without any duty of establishing professorships and lecturerships on its own account and of making otherwise any arrangement either for the teaching of students or for the conduct of original investigation and research. During these fifty years all teaching work had to be undertaken by the colleges, which were affiliated to the University no doubt but over which the University had but loose control. As most of these colleges had not the requisite resources, it was impossible for them to maintain M.A. classes and far less to encourage research. Even the few Government and other colleges which maintained M.A. classes could but perfunctorily discharge their responsibilities in this regard.

Act of 1904 and new ideal of original research

The Indian Universities Act, 1904, made good the deficiency in the University's power in this field. The Act could, however, be enforced only when the Regulations thereunder were framed and adopted. This business could not be finished until the close of the year 1906. In fact the work of framing these Regulations evoked a keen controversy between those who had become inured to old traditions and those who were determined to take advantage of the liberal provisions of the Act and make the University a true instrument of the advancement of learning which had been its motto since the day of incorporation in 1857. But at last the Regulations were so framed as to give satisfaction to the latter school without alienating

the former. Sir Asutosh Mookerjee who had been appointed Vice-Chancellor in 1906 and on whose initiative far-reaching changes were inaugurated in the organisation and functions of the University during the next ten years could now point out in reference to these Regulations in his annual Convocation Address in March, 1907: "We are no longer a purely examining body prescribing courses of study, fixing standards, testing candidates and putting the seal of our approval on them." The true function of the University, he emphasised, "was not merely the distribution of knowledge but also its acquisition and conservation." This purpose could be fulfilled only by adequate encouragement to qualified teachers and students for research. It was his hope that such encouragement it would be possible for the University to offer in its new dispensation. It was in fact his conviction that "unless the University can show substantial amount of research, produced by the aggregate of its Professors, and unless it can show that it has trained a substantial number of able and willing workers to carry on research in the different branches of knowledge, the University can hardly be regarded as approaching the realisation of its ideal."

Doctor's Degree

One way of encouraging research was to award a research degree to the deserving candidates. A step in this direction was taken soon after the adoption of the New Regulations and the degrees of Doctor of Philosophy and Doctor of Science were instituted "for the recognition and promotion of original research." Doctor's degree in Medicine and Law had already been in existence and many had attained the honour which such degree represented. But in the field of liberal arts and sciences there was no Doctor's degree. The void was now filled and at the Convocation of the following year (1908) the degree of Doctor of Philosophy was conferred for the first time upon two distinguished alumni of the University, *e.g.*, the late Satischandra Vidyabhushan and the late Abdullah Suhrawardy. The contributions of the former were in the field of Indian Logic and those of the latter in the field of Mahomedan Jurisprudence. The example of the first recipients of the Doctor's degree was emulated by others from year to year. Among those who were admitted to this degree in subsequent years were experienced professors of the affiliated colleges, who had already established their reputation not only as great teachers but also as original thinkers and investigators. They now came forward to submit the results of their research for the degree of Doctor of Philosophy. It was a matter of congratulation that among them were such distinguished professors as the late

Sir Brajendranath Seal, the late Mr. Hiralal Haldar and the late Mr. Syamadas Mookerjee. The standard of the Ph.D. degree of the University became at once assured when they became candidates for it.*

New Rules for P.R.S.

The change in the rules for the award of the Premchand Roychand Studentship and the establishment of the Jubilee Research Prize were also important steps towards the promotion of the spirit of research among the advanced students of the University. The Premchand Roychand Studentship had been founded in 1866 through the munificence of that distinguished merchant of Bombay, Mr. Premchand Roychand. Since its foundation the award of this studentship was regarded as the highest academic honour which the University might confer on any of its alumni. It could formerly be reached only through a written competitive examination. The rules were now changed so as to make eligible for it only those who would undertake original investigation in some important field of study and submit the results of their research for the studentship. It was a matter of congratulation that from year to year thereafter batches of distinguished students submitted theses embodying the results of original work for the Studentship. The enthusiasm for research, evoked by the change of rules for the Premchand Roychand Studentship, was indicated by the fact that not unoften the number of candidates was so large and the quality of work of most of them was so good as to make it difficult for the adjudicators to declare the successful candidates.

Readership Lectures

Reference has been made in the previous paragraph to the change of rules regarding the award of the Premchand Roychand Studentship and to the establishment of other research prizes. They became an incentive to the conduct of research in different fields. There was, however, the necessity of putting advanced students of the University in touch with the greatest minds of the world so that such contact might stimulate the constructive imagination of our alumni and create in them a spirit of enquiry and research. Lectures delivered by such distinguished men on subjects on which they were an authority would also help much in creating that favourable intellectual atmosphere which was largely lacking so far. To this end the University started inviting from 1907 onwards distin-

* At present there are two Doctor's degrees—in Arts (i) D.Phil, (ii) D.Litt.

guished scholars, both Indian and foreign, for a course of Readership lectures in the University.

From year to year batches of such scholars visited the University, mostly during the cold weather, and delivered their lectures which attracted students and teachers of the University and its constituent colleges and helped to a considerable extent in creating a new outlook and a new approach. The first batch of scholars who were appointed Readers of the University included Dr. George Thibaut who lectured on the Astronomies of the ancient oriental nations, Dr. Thomas Holland who lectured on the Geology of India and Professor Schuster whose lectures were on the progress of modern Physics. In 1908-09, two distinguished men delivered these Readership lectures. Dr. Gilbert Walker dwelt on an important department of Mathematical Physics on which he was a recognised authority and the late Dr. Dineshchandra Sen who from that time onward served the University for nearly a quarter of a century in an important capacity started his lectures on the origin and development of Bengali language and literature. The University had also appointed Professor Pischel a Reader for the year. He had prepared his lectures on the philology of Prakrit languages and was on the way to Calcutta to deliver them. He, however, died at Madras.

The Readership lectures thus started were delivered in subsequent years by such distinguished scholars of the East and West as Mr. Yamakami of Japan, who had established a great reputation as a Buddhist scholar and who delivered a course of lectures on Systematic Buddhism, Dr. Andrew Russell Forsyth of Cambridge who " laid before his audience entirely novel results obtained by himself in an extremely difficult though interesting department of Pure Mathematics," Dr. Paul Vinogradoff who had been Professor in the University of Moscow and later became Corpus Professor of Jurisprudence at Oxford and who spoke here on Kinship in Early Law, Dr. Herman Jacobi of the University of Bonn who delivered an interesting course of lectures on the history and development of Indian Poetics, George Findlay Shirras who was in the Indian Educational Service and spoke on some aspects of Indian Economics and Mr. J. N. Dasgupta, who spoke on some features of Bengali life in the 16th century. We should repeat that these Readership lectures, delivered during the years 1908-14, not only threw new light on different aspects of scholarship and initiated the intellectual and scholarly elements in this country into the mysteries of some new subjects but what was more important, these lectures opened out an opportunity for Indian scholars trained under the Old Regulations to come into touch with great and well-stored minds and imbibe

the spirit of original investigation and research. In fact they helped in creating that atmosphere which was essential for higher post-graduate studies to find strength and nourishment.*

New Regulations and Sir Asutosh's Leadership

Under the Act of Incorporation of 1857, the University had not to make any arrangement either for teaching or for original investigation and research. It might not appoint any professor or lecturer for the purpose. But the Indian Universities Act of 1904 was inspite of its many defects a more progressive measure in this respect. Section 3 of this Act empowered the University "to appoint University Professors and Lecturers, to hold and manage educational endowments, to erect, equip and maintain University Libraries, Laboratories and Museums, to make regulations relating to residence and conduct of students and to do all acts, consistent with the Act of Incorporation and this Act, which tend to the promotion of study and research." This liberal provision of the Act was utilised gradually by the University under the leadership of the late Sir Asutosh Mookerjee, who was Vice-Chancellor from 1906 to 1914 and again from 1921 to 1923 and who continued to be the leading and inspiring figure in the University administration in the intervening period.

First University Lecturers

As early as 1908, he observed in this Convocation address: "During the last months also the Senate has arranged for a large number of University Lecturers for the benefit of Post-graduate students, and it is worthy of note that although we have not found it practicable to make adequate provision for all branches of study, literary and scientific, provision has been made for lectures which were urgently needed." Instruction in Pali language and literature, in the Vedas, and in Vedanta Philosophy was arranged by the appointment of Mr. Kosambi, a celebrated Maharashtriya scholar in Pali, of Acharya Satyabrata Samasrami, a Vedic scholar of renown, and of Pandeya Ramavatar Sarma, a brilliant graduate of the University and well versed in Vedanta Philosophy. The beginning was

* The practice of inviting distinguished scholars to deliver Readership Lectures from time to time has been maintained to this day. In addition Extension Lectures are also arranged as occasions arise. Besides, there are certain Lectures endowed by donors. We may mention in this connection Stephanos Nirmalendu Ghose Lectures on Comparative Religion and the Kamala Lectures, the latter being endowed by Sir Asutosh himself in memory of his daughter.

thus made of post-graduate studies which were to grow from year to year and develop into the organisation with which we are familiar to-day.

Minto Professorship

The University had meanwhile moved the Government for the establishment of a chair in Economics, a subject which had not yet become popular in India and whose study was really in its infancy at that time in this country. The Earl of Minto who was then Governor-General of India and Chancellor of the University announced at the annual Convocation in 1908 in response to this proposal of the University that his Government had decided to make a grant of Rs. 10,000 a year for the maintenance of such a chair for stimulating what he considered as "practical instruction" for "commercial enterprise." The Professorship of Economics which was named after Lord Minto was thus created and the first appointment was made in 1909 in the person of Mr. Manoharlal who had studied the subject with great credit at Cambridge and who in his later career rose high in the public life of the Punjab and became a Minister of that Province. This was the first Professorship created by the University of Calcutta for facilitating the teaching of, and research in, a subject. Tagore Law Professorship which was founded through the munificence of Prasannakumar Tagore in the late sixties of the last century had of course been instrumental since then in stimulating original investigations in different branches of Law. But the terms and conditions under which this Professorship was held precluded it from being an integral part of a teaching and research system which the University now intended to set up.

King's Encouragement

The arrangements for higher teaching which had already been made and which were strengthened by the appointment of the Minto Professor of Economics were expanded from year to year. It was not yet, however, the objective of the University to eliminate M.A. studies in the colleges where arrangements for them existed in one form or another. It was only some years later that decision was taken to concentrate such studies in the University. The aim now was to make an arrangement under which the work done in the colleges might be effectively supplemented by University teaching. Accordingly we find it on record that in 1910 the University undertook post-graduate instruction on such subjects as Comparative Philology, History and Economics while teaching arrangements which had

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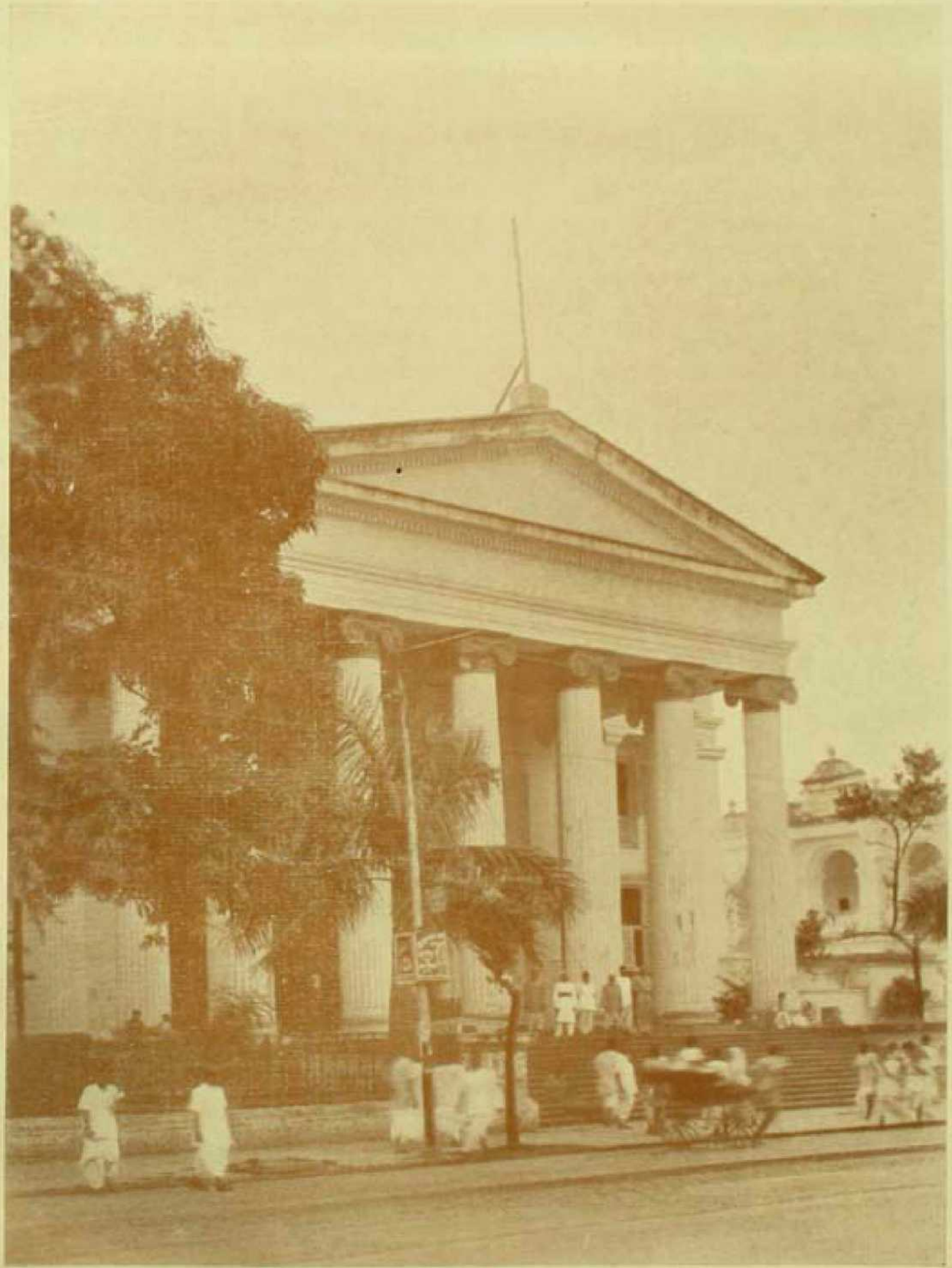

Front View of the Senate House

already been made in Sanskrit and Pali languages and literatures were further expanded. Other subjects, *e.g.*, Pure Mathematics, Arabic and Persian were also given attention and facilities for their teaching were gradually created. That post-graduate teaching should be more and more directly undertaken by the University was now acknowledged and emphasised in most influential quarters. In 1911-1912 when King George V visited India for coronation in this country, he observed in course of his reply to an address presented by the Senate that " No University is now-a-days complete unless it is equipped with Teaching Faculties in all the more important branches of the Sciences and the Arts and unless it provides ample opportunities for Research."

Other University Professorships

So the University proceeded to make further provisions for higher teaching and systematic research. The Government for a while co-operated with the University in this venture by making suitable grants. Some princely donations also were received from distinguished men of the country whose spirit of generosity was equal to their love for higher learning and research. In 1912 five new Professorships were accordingly created. Mention may be made of three of them which are now under the control of the Council of Post-Graduate Teaching in Arts, *e.g.*, George V Professorship of Philosophy, Carmichael Professorship of Ancient Indian History and Culture and Hardnige Professorship of Higher Mathematics. In the following year Dr. Brajendranath Seal who had been the Principal of an affiliated college and who was recognised as a savant in the country was appointed to the first Professorship, Dr. George Thibaut to the second and Dr. Frechet of the University of Poitiers to the third. Professors for English Language and Literature and Comparative Philology were also appointed. Some of these Professorships were maintained, as pointed out already, by Government grants, while some were financed by the University from its funds realised through other sources.

More Suitable Machinery required for Post-Graduate Studies

Betwten 1907 and 1916 the University had made the arrangements for teaching and research, as detailed above, in conformity with Section 3 of the Indian Universities Act, 1904. But the efforts made by the University in this direction were intended not to eliminate but to supplement what was being done by some affiliated colleges to this end. By 1916, however, it became clear that

this dual arrangement was harmful to the conduct of post-graduate studies on an efficient and comprehensive basis. In the first place demand for higher studies had increased manyfold since the last decades of the 19th and the early years of the twentieth century. It was not possible for any affiliated college to cope successfully with any portion of this demand. The result was that the University had to make direct arrangements for teaching a subject practically in all its branches irrespective of what was done in a college. Duplication of work which was, therefore, involved was a waste which might be avoided. Secondly, it was proving increasingly difficult so to control post-graduate studies in colleges as to make them conform to the standard which was maintained in the University classes.

Some solution of this question was urgent. Many felt that concentration of these studies in the University was the one solution. This did not mean that teachers found suitable in colleges for post-graduate work would have no opportunity for it. Their services might certainly be utilised. But this was to be done by their serving the University in a part-time capacity for this purpose. Next by 1916, it became also clear that the number of Professors and Lecturers in the University had increased considerably since their first appointment a decade earlier and would be increasing further in the near future. In view of this it was necessary that the old machinery through which the University had so far exercised supervision over post-graduate studies should be replaced by a new and more suitable one. To this end the change of Regulations was necessary.

Keen Controversy

But both the issues as referred to above evoked a good deal of controversy. The vested interests of the colleges which had so far enjoyed prestige by maintaining a few M.A. classes were up in arms at the prospect of the loss of that prestige. There were again those to whom any change in an existing arrangement was reprehensible. Lastly there were those reactionaries who had been alarmed by the progress of higher studies and the advance of research facilities which the University was providing. Indians were in their eyes only inferior beings, quite good for intellectual pursuits up to a limit but hardly capable of original work. These reactionaries now kept ringing the alarm bell at every suggestion for extending the staff and creating new facilities for higher work. Such elements did not stop opposing the undertaking of post-graduate work by the University

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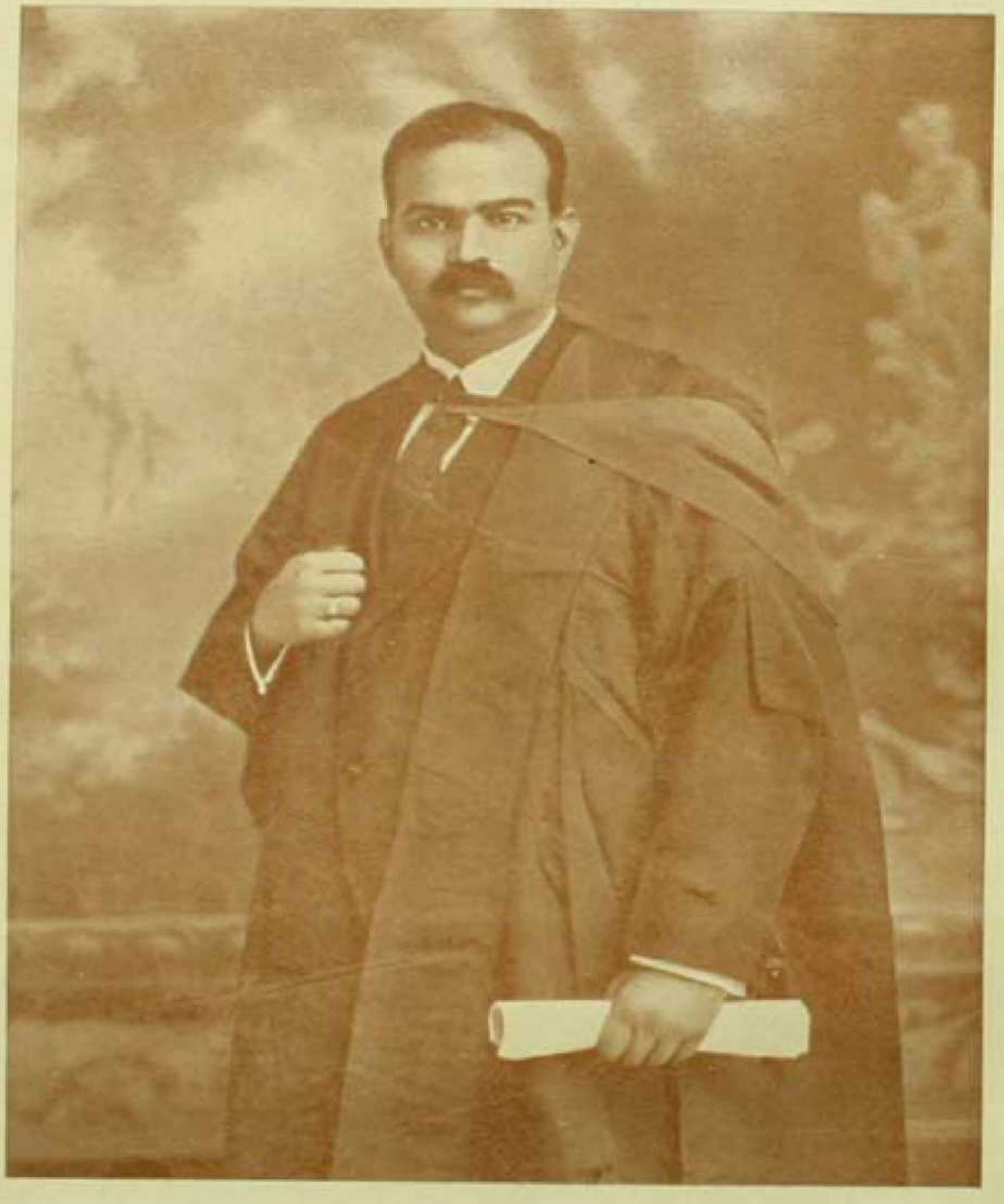

DR. SYAMAPRASAD MOOKERJEE
Vice-Chancellor (1934-38) and President, Council of Post-Graduate Teaching in Arts (1934-47)

even when such work had already been placed on a permanent footing in 1917. They took positions in the last ditch and continued their opposition as occasions arose in the future.

Sir Asutosh Triumphs

We are, however, anticipating events. In 1916-17 when the controversy on the subject became keen the Government of India decided to appoint a Committee. It consisted of ten members, nine of whom had long experience of University administration as members of its Senate. It had Sir Asutosh Mookerjee for its Chairman. The recommendations of this Committee were unanimous, though far-reaching in character. They were accepted in principle by the University Senate at its meeting on the 17th March, 1917. A small Committee consisting of Sir Asutosh as Chairman and Mr. W. W. Hornell, Dr. Brajendranath Seal and Dr. George Howells as members was also set up to draft appropriate Regulations to embody the recommendations of the Committee of ten. The report of this small drafting Committee was placed before the Senate on the 31st of that month and, after a protracted debate in course of which desperate efforts were made to sabotage and nullify the work of the Committee, it was adopted with a few modifications on the 16th April, 1917.

Councils of Post-Graduate Teaching

The underlying principle of these Regulations which provided for a new permanent machinery for the control and supervision of Post-Graduate studies was that teachers themselves would have the predominant voice in the exercise of such supervision and control, subject, of course, to the final authority of the Senate in certain basic matters. Two Councils called the Council of Post-Graduate Teaching in Arts and the Council of Post-Graduate Teaching in Science were now set up. They consisted of all Professors and Lecturers in the different Departments under their respective control, heads of colleges affiliated up to the B.A. or B.Sc. standard of the University in Calcutta, some members appointed by the Senate and some members appointed by the Faculty of Arts or Science as the case might be. Each Council was to conduct its affairs through an Executive Committee and a permanent Secretary and staff. The President elected by the Council was to preside over the Executive Committee as its Chairman. Below the Executive Committee were the Boards of Higher Studies, one for each Department. They were to consist of all the Professors and

Lecturers in the Department and three members elected to it by the Council. Each Board would have an elected Chairman of its own, under whose direction the routine administration of the Department would be conducted.

The Death of Sir Asutosh and Growth of Opposition

Post-Graduate studies thus organised were conducted for seven years when Sir Asutosh Mookerjee who had been President of both the Councils suddenly died while on a professional visit to Patna. During this period of seven years not only Post-Graduate teaching was placed on a specialised footing of its own but much was done to stimulate research by the teachers of the different Departments. A new spirit of original research and investigation caught the University staff. But conditions of service of the teachers had not yet been stabilised. University finances were still in too unfavourable a condition to attempt such stabilisation. But correspondence was going on with the Government and some solution was looked forward to.

The death at this juncture of Sir Asutosh Mookerjee (which took place on the 24th May, 1924) was a calamity in more than one sense. It should be repeated here that he had been the soul of the movement for transforming the University from a mere affiliating and examining body into a teaching and research institution. We have seen already the kind of opposition he had to face in this regard. Such opposition had made desperate efforts to thwart his schemes at every turn. A man of great resources of mind and spirit, he had, however, succeeded in scattering this opposition and securing the assent of the Senate and the Government to the changes in the Regulations which were necessary for creating the new machinery for the supervision and control of Post-Graduate studies.

Now that he was gone, the scattered opposition re-appeared with its ranks re-formed and re-inforced. Enemies who had retired to the back bench suddenly came forward and started hurling poisoned shafts against the infant Post-Graduate institution. They made the financial assistance asked for from the Government the basis of their attack upon the arrangements which had been made for Post-Graduate studies. It should be remembered in this connection that under the Government of India Act, 1919, education was a provincial subject and it was the Government of Bengal with which alone the University had now to deal in respect of all matters financial or otherwise. This Government had not the detachment, which the Government of India had possessed at least

Front View of the University College of Science and Technology, 92, Upper Circular Road

to some extent. Its policy was now largely influenced and guided by men who had formerly opposed the setting up of Post-Graduate studies by the University.

As we read the proceedings of the Senate of those days it seems that an alliance was established between the official members of the Senate headed by the Director of Public Instruction and a number of non-official members who felt that either their own personal importance or the importance of the institutions with which they were connected suffered diminution as a result of the establishment of Post-Graduate studies under the auspices of the University. This alliance which worked both inside and outside the Senate advocated on the ground of financial stringency the abolition of some of the Departments, *e.g.*, Psychology, Comparative Philology and Anthropology. These Departments were even then carrying on very useful work and have since then brought credit to the University from far and near. The alliance also advocated that the services of most of the whole-time teachers of the University should be done away with and more part-time Lecturers from colleges should be appointed to perform their work. The question whether this arrangement would conduce either to efficient teaching or to proper development of research was dismissed as irrelevant.

The Committee of Enquiry, 1924-25

The arguments advanced by the opposition against the existing arrangement for Post-Graduate studies were inspired no doubt mainly by spirit of hostility and had little intrinsic worth, but leaders of the majority in the Senate were constrained to meet them half way. Funds of the University, though re-inforced by munificent donations of high-minded men, were inadequate for the maintenance of a large establishment. Sufficient Government grant was indispensable for the purpose. Such grant was not, however, to come forth without view-points of the opposition in the Senate which was led by the Director of Public Instruction himself, being examined and scrutinised by a Committee. Accordingly on the 27th September, 1924, on the motion of Mr. P. N. Banerjee, who is the present Vice-Chancellor of the University and who was even then a prominent figure in University affairs, a Committee was set up "to enquire into the working of the Post-Graduate Departments with a view to formulating a definite scheme for the stabilisation and development of Post-Graduate Studies in Calcutta." Sir Ewart Greaves became its Chairman and Mr. Banerjee its Secretary. Among the 18 other members of the Committee were Sir P. C. Ray and Mr. Syamaprasad Mookerjee.

After detailed enquiries and protracted discussion the Committee submitted its report in May, 1925. It could not be unanimous in its recommendations. Four distinguished members of the opposition who had been included in the Committee submitted a Note of Dissent on all essential and basic matters. Their demand which had already been made in many previous discussions was now reiterated. They wanted the virtual abolition of such Departments as Psychology, Comparative Philology and Anthropology on the ground that the number of students they attracted was not commensurate with the amount of expenditure they entailed. They also wanted a drastic reduction in the number of whole-time teachers of the University and the allocation of their work to an increasing number of part-time teachers appointed from the colleges.

On the 16th of May and subsequent days the Senate considered the Report which was placed before it by Mr. Banerjee. The recommendations of the Committee which were by themselves a compromise between opposing points of view were carried and the amendments based on the Note of Dissent were turned down. Post-Graduate studies were thus saved from practical annihilation which was threatened by the opposition on this occasion. But the struggle for existence was not yet over. Appointments of whole-time teachers were now made for five years. The object was that there would be another enquiry before the expiry of this period and a new scrutiny of the activities and needs of different Departments would be made on that occasion. So Post-Graduate studies continued, more than fifteen years after their first inauguration, to be again on probation for five years. But the fact that they were allowed to survive was itself a great gain.

The Committee of Enquiry of 1928-30 and Reorganisation of 1932

The Committee of Enquiry envisaged in the previous paragraph was set up by the Senate in December, 1928. It consisted of eighteen members. It was to work under the chairmanship of the Vice-Chancellor, Rev. Professor W. S. Urquhart, and had for its Secretaries Dr. Syamaprasad Mookerjee, who was then a rising Member of the Senate and rapidly gaining its confidence, and Professor J. N. Mukherjee. The Committee grappled with the task, Department by Department, for over a year. Its report which went into details of University organisation in all its branches was discussed by the Senate in March and April, 1930. The recommendations of the Committee were accepted with amendments here

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SIR NILRATAN SIRCAR
Vice-Chancellor (1919-21) and President, Council of Post-Graduate Teaching in Arts (1924-27)

and there and finally given effect to, after conferences with the Government and requisite changes in the Regulations, in 1932.

This reorganisation did not bring in basic changes, except in two particulars, in the administration of the different Departments of Post-Graduate Studies. In details, however, there were many alterations, *e.g.*, in the composition of the Selection Committees, in the number of whole-time and part-time teachers, and in the composition of the Executive Committees. The basic changes referred to above were introduced in the conditions of service of the whole-time teachers and in the leadership of the Departments. Before 1925 University teachers were appointed from year to year and security of tenure was altogether unknown except for the incumbents of the endowed chairs. In 1925 appointments were made for five years. This was an improvement upon the past practice but did not go far enough. Now arrangements were made for making appointments on a permanent basis. This was a very salutory change making it possible for teachers to perform their duties without anxiety as to what would happen after a limited period. The grades decided upon were also respectable by the standard of the 1930's, though at the present time they compare unfavourably with corresponding grades in many other Universities in India and with price indices in Calcutta. In regard to Departmental leadership, it had been the practice since 1917, for all affairs of a Department being conducted by a Board of which all the Professors and Lecturers in the Department were members. The Chairman of this Board was elected by the members from among themselves. It was possible for a teacher who was not a Professor nor even a whole-time teacher of the University to be elected in this capacity. This elected Chairman of the Board was to exercise leadership and supervision of the Department under the final authority of the Executive Committee and the Senate. This arrangement was now regarded as unsuitable and inappropriate and it was decided to arrange for the appointment of Heads of Departments. A teacher of the Department, usually a Professor, would henceforward be appointed its Head by the Senate on the recommendation of the Executive Committee. Since 1932 the Head has been responsible for every administrative work of the Department under his charge.

For over fifteen years now different Departments of Post-Graduate Studies have worked on the basis of the decisions which were given effect to in 1932. The arrangements arrived at have proved on the whole satisfactory but even the best arrangements suffer wear and tear as years pass by. Meanwhile again far-reaching changes have been effected in the governance of the country and

consequently in the outlook of the people and the needs of the University. It may be necessary on these grounds to bring about further expansion in the organisation of Post-Graduate studies. Already a new Department under the Council of Post-Graduate Teaching in Arts had to be inaugurated in the present session, *e.g.*, the Department of Political Science and arrangements have practically been completed for the creation of another Department, *e.g.*, that of Education which was so long concerned only with the training of teachers up to the first degree stage but which is now to be raised to Post-Graduate status. In view again of the partition of the province and the establishment of a separate University in Assam, the jurisdiction of this University has considerably shrunken with corresponding decrease in its fee income. This again will involve fresh financial settlement with the Government. It is not, however, our purpose in this brochure to look so much to the future as to turn back to the past and recapitulate what has been done during the last forty years.

DEPARTMENT OF ENGLISH LITERATURE AND LANGUAGE

One of the important results of India's long political connection with Britain was the emphasis which had to be placed on the study of English in schools and colleges of this country. For long it has been the major subject to be studied by Indian students. Looked at from one angle this emphasis might be regarded as one of the most fruitful and beneficent aspects of British rule. Study of English Literature not only opened to the Indian mind its rich treasures but inured it to the long traditions of liberty which the British people prized and fought for and which had entered deeply into the texture of that literature. English language again became the medium of India's contact with the outer world and helped in bringing Indian mind into intimate touch with the thoughts and ideals of the west. But looked at from another angle, the study of English presented a seamy side which has made many people pessimistic as to its utility. It was pathetic and even tragic to find the energy of young boys and lately of girls as well being so largely exhausted in vain attempts, spread over a dozen years, to master this foreign tongue. They had to concentrate for years all their attention on it to the neglect of many other subjects the cultivation of which during that period would bring pleasure to their studies, strength and discipline to their intellect and usefulness to the work they would be called upon thereafter to undertake.

There is, however, no gainsaying the fact that whatever the cost, a large number of men not only mastered the language thoroughly but chastened their mind and broadened their outlook by the study of the literature stored in that language. Many of them again wrote and spoke in that language in a manner which was the despair even of many who were born to it. Speeches of Lalmohun Ghose and Rashbehary Ghose were models of diction and style. In composition of poetry in English language Toru Dutt, Sarojini Naidu and Monomohan Ghose not only greatly excelled but made for themselves a place in any honest history of English Literature. In prose composition the names of Govind Dutt and Lalbehary De will not easily be forgotten.

But although a large body of men and women acquired an excellent mastery of English Literature and Language and some of them showed merit and even genius in original composition in that language, what is called a systematic research either in its linguistic characteristics or in its literary traits had not been attempted by the alumni of our colleges either as they stood in pre-University days or as they were constituted after the University came into being. For such researches the University itself had to make arrangements after it was empowered to that effect by the Indian Universities Act, 1904, and the Regulations made thereunder. It was in fact to provide for higher teaching in English Language and Literature and stimulate original investigation in their different aspects that the University opened its own Post-Graduate classes in English and appointed some teachers for the purpose. Between 1910 and 1916, however, only a small beginning was made. Two Professors were appointed in the persons of Mr. R. Knox and Dr. H. Stephen and associated with them was a small body of scholars including Mr. Roby Dutt, Dr. H. C. Mookerjee and Mr. H. C. Maitra.

But in 1917, when Post-Graduate studies were stabilised under the control of Councils of Post-Graduate Teaching, the Department of English was also expanded and it had thenceforward one or two Professors and a full contingent of Lecturers. After the death of Dr. H. Stephen which took place in 1927, Mr. Jaygopal Banerjee, M.A., was appointed to the Professorship and held it till 1936. When he retired in that year, Dr. H. C. Mookerjee who had been previously associated with the Department but later filled the offices of Secretary, Council of Post-Graduate Teaching in Arts and Inspector of Colleges, took his place. At present the Department is headed by Sir Gooroodass Banerjee Professor of English Literature, Dr. M. M. Bhattacharyya, and is served by six whole-time Lecturers, six part-time Lecturers, two Lecturers from other Departments and three whole-time Tutors. The course comprises English Literature of different periods, a connected *History of English Literature*, origin and growth of the English Language, and the history of English literary criticism. The course is divided into two Groups—A and B. The first four papers are common. Group A includes in addition English Literature from 1832 to present times, while Group B includes in addition Old and Middle English Literature and Growth of English Language.

In the appendix are given some details of the research publications of the members of the Department. Original investigation in English Literature and Language in an Indian University involves difficulties which cannot always be mastered. Inspite of this handicap some good work in different branches has been done and elicited

recognition abroad. One of the members of the staff, Dr. A. Chakravarti, has been in the U.S.A. for the past few months as a Visiting Professor.

Until recently the popularity of the English classes was immense. To keep out students was a problem. Classes were consequently too large. For the last two sessions, however, this popularity has been on the wane and the number of candidates is dwindling. Possibly this reaction, born of the new political status of the country, is only temporary and the importance of the study of English Literature will re-assert itself when things settle down after a time.

DEPARTMENT OF HISTORY

Study of history was not one of the strong points of Indian culture in bygone days. In the vast and complicated apparatus of learning which the ancient Hindus left as a bequest to posterity there was little which might pass as historiography. There are in fact very few pieces of historical writing which have come down to us from ancient times. People in those days apparently believed in developing their civilisation without reference to sequence of time. In this regard ancient Greece had certainly a great advantage over India. People there were more historically minded and as in other respects so also in the field of writing history Greece is the recognised teacher of Europe. But in this country there was no great figure in ancient ages who might be acknowledged as the father of history. Children of the 19th century Renaissance who turned to re-writing our history had accordingly to draw inspiration and guidance from western writers.

Such enthusiasts for historical scholarship were produced in a goodly number both in pre-University days and in decades after its establishment. It may appear surprising that the descendants of the ancient Hindus who were so indifferent to history should so easily acquire a taste for it now. This was not brought about by any magic wand. Traditions had considerably changed in the

country with the advent of Islam. Writing chronicles of events as they happened in succession was both a personal hobby and an official duty of a body of scholars during the centuries of Muslim rule in many parts of India. People thus became accustomed both to write and to read historical works. It is not surprising on this account that students took with avidity to the reading of history prescribed in the syllabus of the Hindu College which was established in 1817 and which helped so much in ushering the 19th century Renaissance in this country.

When the University was incorporated in 1857, it gave an important position to history in its syllabus for the different examinations. Year after year the University produced graduates many of whom had an excellent grounding both in Indian and European history. The national movement which started with the founding of the Indian Association in 1876 and of the Indian National Congress in 1885 gave again a new stimulus to historical studies. People became more eager to know of their past than ever before. They also became equally curious to know of the historical development of other countries so as to draw inspiration from it to an increasing extent. The historical novels of Bankimchandra Chatterjee were also in this regard a stimulus whose importance none should miss.

It was in an atmosphere so created that Raja Rajendralala Mitra and Romeschandra Dutt began their historical writings. The latter's *Ancient Civilisation of India* and *Economic History of India* are the great pioneer works which gave inspiration to scholars who later devoted their energy to historical research. Meanwhile the University being then only an affiliating and examining body could itself make no arrangement for furthering historical studies. But according to the syllabus prescribed by it some colleges offered opportunities to students to pursue such studies up to the highest examination of the University.

Arrangements for the teaching of History to M.A. students were first made in the University in 1912. It should be emphasised that during the next five years such teaching was undertaken to supplement work done in some of the affiliated colleges. By 1916 the number of teachers who took up such teaching work and who at the same time carried on research in some branches of history grew to a respectable figure. In 1917 post-graduate studies under the ægis of the University were stabilised and placed under the control of two Councils, one for Arts and the other for Science subjects. Post-Graduate teaching was now concentrated in the University and the staff had accordingly to be considerably expanded in order that different branches of history as provided for in the syllabus might

be adequately dealt with. It may be mentioned in this connection that although Ancient Indian History and Culture now became a separate subject for the M.A. Examination and was not to be merely a part of the History syllabus, there was one Board to supervise and control both History and Ancient Indian History and Culture. In other words the subjects were two but the Department was one. This arrangement was continued till 1932 when Ancient Indian History and Culture was placed under a separate Board of its own.

The present syllabus includes the study of five compulsory subjects, one subject for special study covering two papers and one essay paper. The compulsory five subjects are (*i*) a special period of British History (now the period from 1815 to 1901), (*ii*) Ancient Indian History and Culture from 600 B.C. to 900 A.D., (*iii*) History of the Ancient Near East including Egypt, Babylonia, Assyria, Elam, (*iv*) Constitutional History of England, (*v*) International Law (Peace, War and Neutrality). The special subjects include certain branches of Indian History as (*i*) History of Bengal from 1757 to 1793, (*ii*) History of the Rajputs, (*iii*) History of the Mahrattas, (*iv*) History of the Sikhs. They further include history of other countries and study of institutions, *e.g.*, (*v*) European History from 1815 to 1914, (*vi*) History of Islam (including History of Islam in India), (*vii*) Constitutional History of India and the other British Dominions, (*viii*) Economic History of India and Britain, (*ix*) Modern History of the Far East, (*x*) Comparative Politics.

This syllabus which is now nearly forty years old was correlated to the syllabus of History in B.A. Honours course and was intended to combine a wide general historical culture with an intensive study in some particular branches. It is true that in view of changes in importance of some subjects modifications here and there in the syllabus may have to be attempted in the near future. But there is no gainsaying the fact that the syllabus as it stands to-day has helped considerably in creating a wide outlook and a broad vision in the students without, however, neglecting to foster in them a spirit of detailed enquiry into some particular aspects.

So long as the two subjects—History and Ancient Indian History—were combined in one Department, there were two Professors attached to the Department, *e.g.*, Carmichael Professor of Ancient Indian Culture and Civilisation and Bagiswari Professor of Indian Art. But Asutosh Professorship of Medieval and Modern Indian History was created later and first appointment was made to it in 1931. So when in the following year Ancient Indian History and Culture was given a separate Department of its own, the History

Department came to have only one Professor, *e.g.*, Asutosh Professor of Medieval and Modern Indian History. The first holder of this Chair was Dr. Surendranath Sen, M.A., Ph.D., B.Litt. (Oxon.) who left the University to become the Director of National Archives at New Delhi in 1939. Thereafter the Professorship was for some years held in abeyance and has now been filled by Dr. Indubhushan Banerjee, M.A., Ph.D., who has been head of the Department of History since 1943.

Professor of Medieval and Modern Indian History is assisted in the conduct of the Department by six whole-time Lecturers, five Lecturers from other Departments, and seven part-time Lecturers. In the appendix is given a list of books and papers written and published by the members of the Department from time to time. This list is not exhaustive but only illustrative. It will show that while there is a good deal of attention paid to the re-writing of Medieval and Modern Indian History in all its aspects, other branches of study as included in the syllabus for the M.A. Examination have not been neglected by the members of the Department.

DEPARTMENT OF PHILOSOPHY

The study of philosophy had been an integral part of Indian culture from time immemorial. When, therefore, the University was incorporated in 1857 and philosophy was included in the curriculum of studies for the B.A. and M.A. Examinations, students flocked to its classes in the nature of things. Traditions impelled them to go in for philosophical studies, though it was mostly the philosophy developed in the west which they were now required to

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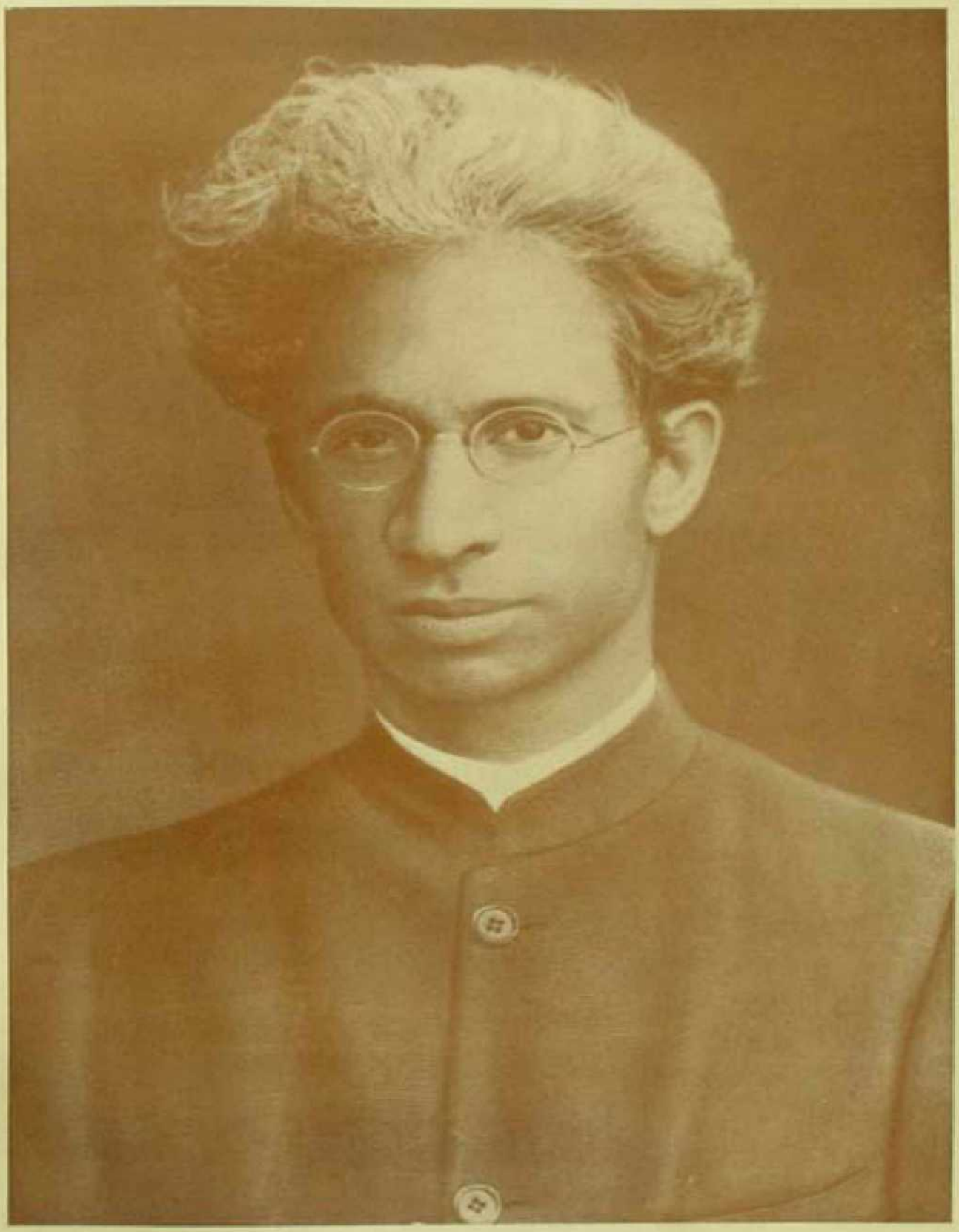

PROFESSOR SARVAPALLI RADHAKRISHNAN
President, Council of Post-Graduate Teaching in Arts (1927-29, 1930-31)

cultivate. This popularity was maintained by philosophy till the close of the first world war. Since then scientific studies on the one hand and economic and commercial studies on the other have become more attractive and popular and have dislodged philosophy from its old position of primacy. But no body denies the importance which should be attached to philosophical studies in an integrated curriculum of University work.

This importance of philosophical studies was fully appreciated by the University authorities and they made arrangements for higher teaching of the subject almost immediately after post-graduate teaching and research were for the first time taken in hand by the University itself. Students of the highest calibre had for many years gone in for philosophical studies and the number of men with high attainments in the subject was large. The University had on this account no difficulty in gathering together for post-graduate teaching and research a band of men who shed lustre on this seat of learning. In 1912, George V. Professorship of Philosophy was created and early in the following year Dr. Brajendranath Seal was appointed to it. Dr. Seal who was later Knighted and became the Education Minister of the Mysore Government and Vice-Chancellor of the Mysore University was a scholar of outstanding eminence in the country. The few pieces of his writings which have survived bear eloquent testimony both to his wide sweep of learning and to his originality of ideas. But his position in the world of scholarship was not to be judged by these writings alone. They were only in a small way specimens of his scholarship. His chief contribution to the growth of Indian scholarship lay in enriching the mind of other scholars. He was for them the path-finder, indicating to them the lines of enquiry and suggesting to them the meaning and significance of facts which they might collect. Associated with Dr. Seal in post-graduate work were such scholars as Dr. Hiralal Haldar, Mr. J. R. Banerjea, Mr. A. C. Mitter and Dr. P. D. Sastri. The present holder of the Chair also joined the band in 1914 as an assistant to the Professor.

In 1917 when post-graduate studies were finally centralised in the University, the staff was further extended and younger scholars had opportunity of being associated with the Department. Such association has helped many of them to make advanced studies in different branches of philosophy and extend by their original contributions the bounds of knowledge. In 1921, Dr. Seal left for Mysore and his place at Calcutta was offered to and accepted by Professor Sarvapalli Radhakrishnan. With periodical absences he remained at the head of the Department of Philosophy till 1941 in which year he left Calcutta to undertake the Vice-Chancellorship of the

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Hindu University at Benares. But his connection with this University, which has been a blessing in more than one sense, still continues. He is to-day associated with it as an Honorary Fellow and as Emeritus Professor of Philosophy. He was succeeded by Professor Surendranath Dasgupta, who retired after holding the office for three years. The present George V. Professor is Dr. S. K. Maitra, a former pupil and assistant of Dr. Seal. Apart from the Professor there are five whole-time Lecturers in the Department, five part-time Lecturers from the affiliated colleges and three Lecturers from other Departments of the University. We have mentioned above that the study of philosophy is not as popular to-day as it had been for decades before the first world war. But even then the number of students in each of the two post-graduate classes is in average sixty. The subjects they have to study are History of Ancient and Medieval European Philosophy, History of Modern European Philosophy, Oriental Philosophy, Theory of Knowledge and Metaphysics, and one of such subjects as Psychology, Logic, Ethics and Social Philosophy, Philosophy of Religion, Special Branch of Indian Philosophy, Politics and Aesthetics.

There are at present one Research Fellow and two Research Scholars in the Department. These research students not only carry on researches on certain aspects of philosophy but have an opportunity of enriching their mind generally. Constant contact with the teachers of the Department and with the well-stored University Library is to them an advantage to be prized. In fact former Research Scholars of the Department have proved an asset to the different institutions which they later joined both in widening the bounds of knowledge and in guiding studies of the students placed in their charge. Professors and Lecturers of the Department have apart from lecturing to the classes and guiding the work of research students have independently contributed much to the extension of philosophical knowledge of the world by bringing out books and publishing papers. Some of these publications are set forth in the appendix.

THE DEPARTMENT OF MODERN INDIAN LANGUAGES

When the Act of Incorporation of 1857 was passed, the process of anglicising Indian education, started by Macaulay, was still in progress. Not only the boys and girls of this country were to be

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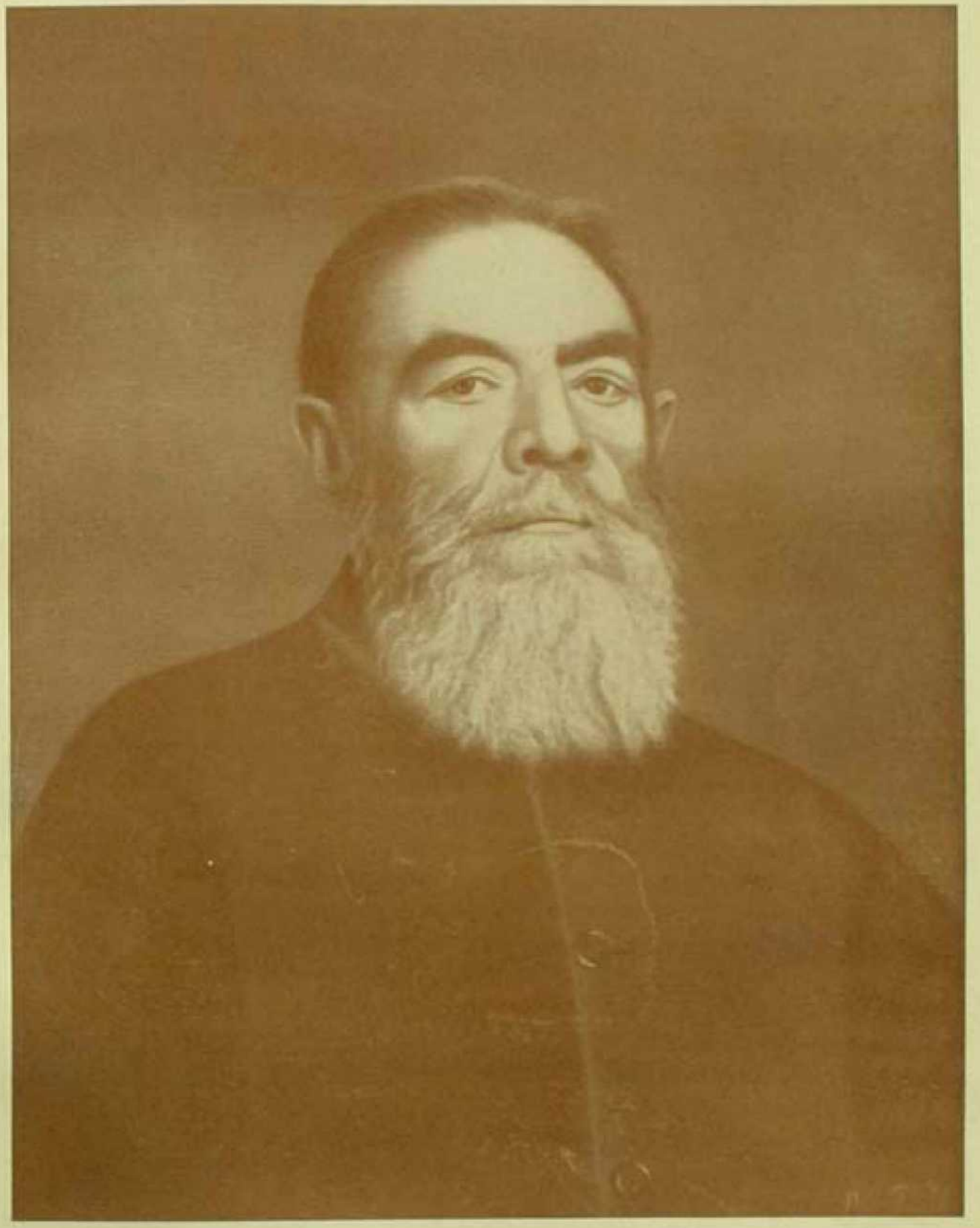


PROFESSOR HIRALAL HALDAR
President, Council of Post-Graduate Teaching in Arts (1933-34)

introduced to the western sciences and arts and that through the medium of the English language but what was more no attention was to be paid by them to the study of the language and literature of the different provinces of India. Living provincial languages like Bengali and Hindi were kept out of the syllabus of different examinations conducted by the University. This unfortunate state of affairs continued till 1907, although meanwhile the living Indian languages had developed considerably. The Regulations which were framed under the Indian Universities Act of 1904 for the first time provided for a test of the knowledge of the candidate's own vernacular in the University examinations from Matriculation to Graduation. The object even then was not so much to test the acquaintance of the candidate with the literatures which had been produced in such languages as it was to test their power to practise composition in them. Consequently the question of starting any post-graduate course in Indian languages and literatures did not arise immediately.

But Sir Asutosh Mookerjee who was at the helm of affairs of the University as its Vice-Chancellor from 1906 to 1914 took the initiative in conferring a fellowship, named after the great educationist of the last century, Ramtanu Lahiri, upon Mr. Dinesh Chandra Sen who had already done some pioneering work in collecting materials for a systematic history of the Bengali language and literature. It should be recalled in this connection that Sir Asutosh Mookerjee had never been happy at the continued exclusion of provincial languages and literatures from the curriculum of studies prescribed and the examinations held by the University. In 1890 he was the youngest member of the Senate but he took courage in both hands and brought in a motion in that house for introducing a test in such languages as a pre-requisite of a University degree. The motion fell through. He, however, kept up his opposition to the existing arrangement. His point of view was at last partly adopted in the Regulations which were framed under the Indian Universities Act, 1904. They were, of course, as it has been pointed out above, a half way house in this regard. An attempt was now made to rectify to some extent this defect of the Regulations by opening out an opportunity to Mr. Sen not only to conduct his investigations but to place their results before the scholarly world under the auspices of the University itself. In his Convocation address in 1909 the Vice-Chancellor was proud to observe in this regard: "We have had a long series of luminous lectures from one of our own graduates, Babu Dineschandra Sen, on the fascinating subject of the History of the Bengali Language and Literature. These lectures take a comprehensive view of the development of our

vernacular, and their publication will unquestionably facilitate the historical investigation of the origin of the vernacular literature of this country, the study of which is avowedly one of the foremost objects of the new Regulations to promote."

The lectures of Mr. Dineschandra Sen attracted attention of the educated public to the existing resources of the language and its potentialities and created an atmosphere in which it was possible for a demand to be made for suitable provision for the higher study of the Bengali language and literature as a part of the post-graduate courses of the University. It is significant that in 1912 the Chancellor, Lord Hardinge of Penhurst, observed in his Convocation address at the University: "One of these Readers, Mr. Sen, has embodied his lectures on the history of Bengali language and literature from the earliest times to the middle of the 19th century in a volume of considerable merit, which he is about to supplement by another original contribution to the history of one of the most important vernaculars in this country. May I express the hope that this example will be followed elsewhere and that critical schools may be established for the vernacular languages of India which have not as yet received the attention that they deserve."

In the year that His Excellency spoke as above, Nobel Prize for Literature was conferred upon Poet Rabindra Nath Tagore. This at once brought out into relief the extent of development which had taken place in the literature and language of the province and accordingly quickened the demand for a provision of higher studies of the subject. In the following year* the University conferred upon the poet the Degree of Doctor of Literature *Honoris Causa* and the occasion further attracted the attention of the public to the potentialities of the language and literature which had been advanced so much by the contributions of the poet-philosopher upon whom the University was bestowing the honour. No wonder on this account that Sir Devaprasad Sarvadhikary, the Vice-Chancellor, was constrained to observe in his Convocation address in 1916 that while the University insisted on some acquaintance with the vernacular languages up to the B.A. stage, "many think that the inclusion of the M.A. stage in this development ought not to be long deferred."

Three years more were, however, to pass before the Department of Modern Indian Languages for post-graduate studies could be set up in 1919. The objective was not merely to offer facilities for the higher study of Bengali language and literature as they had

* The decision had been taken by the University in this regard before the news of the honour which Nobel Committee conferred upon the Poet reached India.

evolved through the centuries. The syllabus included the study of other major Indian languages as well. In fact the objective in establishing the Department was to facilitate an intensive comparative study of the major Indian languages with a view to find out their common cultural and philological background. These languages as provided for now in the syllabus are (a) Bengali, (b) Oriya (c) Assamese, (d) Hindi and (e) Urdu. Students reading for the M. A. degree have to take one of them as their principal subject. In addition they have to study Pali and Prakrit as basic languages and one of (a) Sanskrit, (b) Bengali, (c) Oriya, (d) Assamese, (e) Hindi, (f) Urdu, (g) Persian, and (h) Maithili as a subsidiary language. The principal subject has to be studied intensively in all its aspects, *e.g.*, its historical and comparative grammar and its literature both in its historical evolution and in the critical and analytical study and appreciation of its selected prose, poetry and drama texts.

Such studies as detailed above have enabled the students in getting acquainted with the past history of the province as revealed in its literature and culture and to assess the value of modern developments in a critical and comparative method. There is an idea lurking in many minds that Modern Indian Languages is a soft subject the study of which may help in getting acquainted with the literary and cultural life of our people but may not provide that intellectual drill without which young men turned out by the University may not go ahead in a profession or calling which they may choose. But any body familiar with the nature of work which the students are required to do and which have been emphasised above should testify to the fact that the study of Modern Indian Languages develops as much the higher powers of the mind and strengthens as much the understanding of the students as any other subject.

Those of the students again who prefer to devote their life to original research and investigation have an excellent quarry to explore and dig in. Already many dark corners have been lighted and many voids in our knowledge have been filled as a result of investigations carried on by the teachers and research scholars of the Department. The late Professor Dineschandra Sen was of course the path-finder. He showed the way by his indefatigable research in many fields. The old manuscripts of Bengali books which had been lying hidden from scholar's gaze in out of the way places were unearthed by him and provided materials for his pioneer work on the History of the Bengali Language and Literature which he presented to the intellectual public as Ramtanu Lahiri Fellow of the University. His contributions to our knowledge of

Vaisnava literature and its background have inspired others not only to further work in the same field but also to the study of many other religious cults, round which an excellent literature happened to grow. Dr. Sen had also applied his energy to the collection of popular ballads, songs and stories which proved delectable as literature when published for the first time by him.

While unearthing of old manuscripts, determination of their proper readings and their editing on a scientific basis have claimed a good deal of attention of some members of the staff, others have devoted their time and attention to the critical study of different aspects of modern Bengali literature. A critical historical study of the Bengali language has also been pursued by the Department in co-operation with the Department of Comparative Philology. Barely forty years have passed by since the University first began to take interest in the study of Indian languages and literatures. The work done during this short period certainly reflects credit on the Department. Incidentally it should be pointed out that after the retirement of Dr. Dineschandra Sen from the Professorship in the Department, Poet Rabindranath Tagore was for a period associated with it as a Professor. While Sj. Khagendranath Mitra was put in charge of the Department as Ramtanu Lahiri Professor, the Poet's association with it was an inspiration to students and teachers of the Department. Mr. Mitra has continued to be associated with the Department as an Emeritus Professor since his retirement in 1945. But the chair has been held since then by Dr. Srikumar Banerjee.

DEPARTMENT OF ECONOMICS

Under the old Regulations of the University which were effective up to 1909, Economics was not a subject to be studied exclusively for either the first or the second degree examination. It was only a part of the History syllabus. In the 19th century when these Regulations were framed, the study of Economics was yet in its infancy. It may be recalled that when the syllabus for the competitive examination for entry into the Indian Civil Service was first drawn up, it did not include Economics. It was not supposed to have that cultural value which other subjects like literature, philosophy and history were known to possess. Economics was only to be studied by civil servants (after their selection) during the probationary period. But in later years the

PROFESSOR P. N. BANERJEA
President, Council of Post-Graduate Teaching in Arts (1929-30, 1931-33)

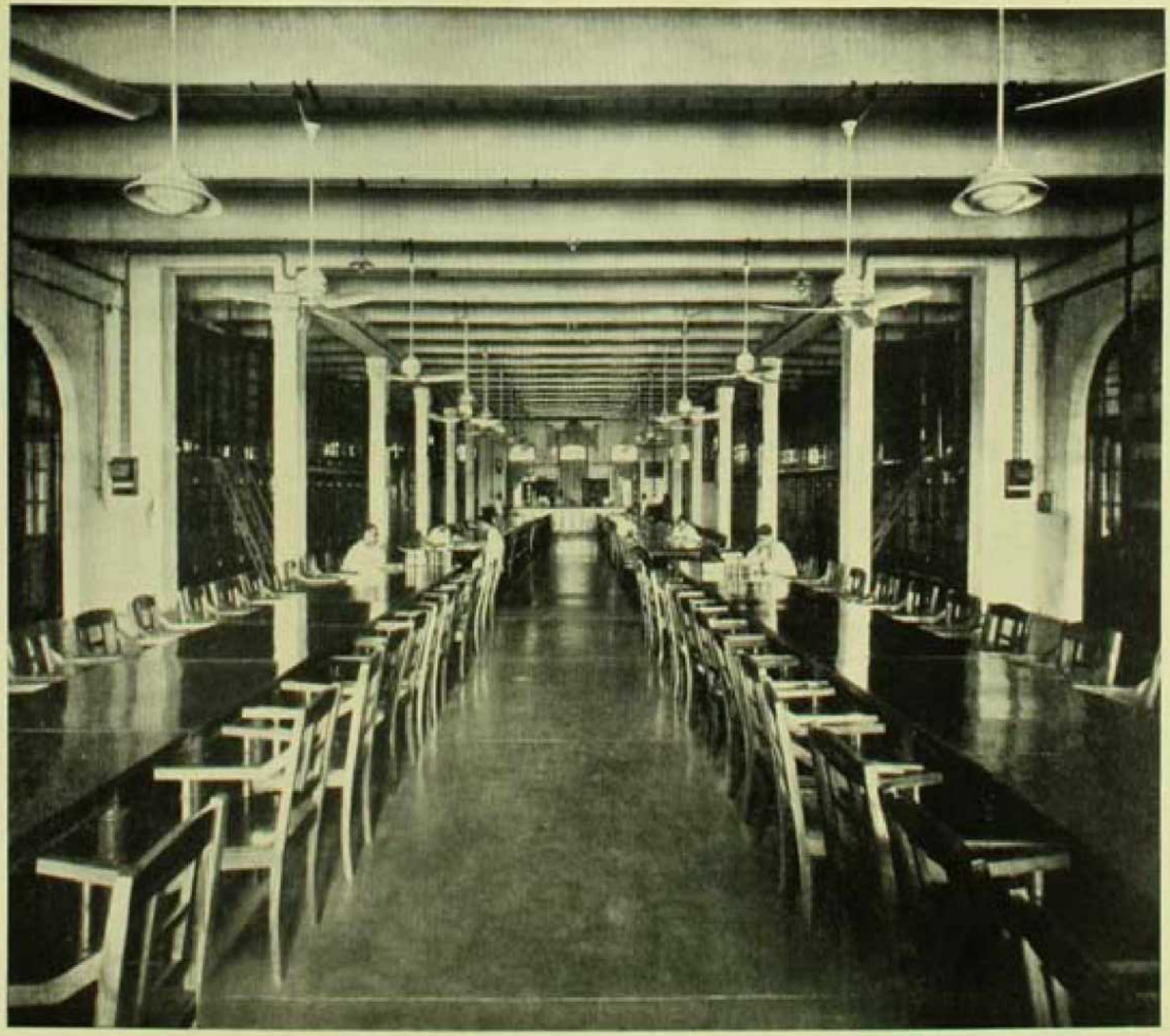
subject made rapid strides of advance and attained the status of a major subject in many European Universities. In India, however, conservatism still persisted and students had no opportunity of paying full attention to the subject till the first decade of the twentieth century was well nigh over. Under the new Regulations framed under the Indian Universities Act of 1904, the University of Calcutta provided for both B.A. Honours course and M.A. course in Economics, which, however, came to be known as Political Economy and Political Philosophy and attention had to be paid by students both to economic theory and practices and to political theory and practices. So a half way house was created and it was maintained in both the stages until the present year. For the Master's degree Economics and Political Science have, however, now been separated.

In 1908 when the new Regulations had already been framed and the University proceeded to make arrangements for post-graduate teaching under its own aegis, it is significant that the first Professorship which the University set up was that in Economics. In the annual Convocation held in March, 1908, the Chancellor, Lord Minto, announced on behalf of his Government that an annual grant would be made to the University for the creation of a chair which was named after him. In 1909, the first Professor was appointed in the person of the late Mr. Manoharlal who had attained high honours in the subject in Cambridge and who in later days became a prominent figure in the public life of his province, the Punjab. When his term which was fixed at five years was over, he joined the Chief Court Bar at Lahore and his place as Minto Professor of Economics was taken by Mr. C. J. Hamilton. The latter gentleman was succeeded in 1919 by Dr. P. N. Banerjea, M.A., D.Sc. (London), Barrister-at-Law. Dr. Banerjea served in this capacity for three terms and was at the helm of economic studies of the Calcutta University till 1935 in which year his place as Minto Professor of Economics was taken by Dr. Jitendraprasad Niyogi, M.A., Ph.D. (London). In 1940 the Government of India which had financed the Professorship so far discontinued its grant and the University had to undertake the responsibility of financing it from its own funds. Accordingly the name of the Professorship was also changed to University Professorship of Economics.

After the first appointment of the Minto Professor, University classes in Economics became increasingly popular and he had to be assisted by other teachers. Accordingly until a stable organisation for post-graduate studies was set up in 1917, the Minto Professor was given the assistance of several other teachers, some

of whom were called Assistant Professors and some as Assistants of the Professor. After the inauguration of the 1917 organisation, the Department came to consist of the Minto Professor, another Professor and a number of Lecturers, some being whole-time servants of the University and some serving in a part-time capacity. At present the Department is headed by the University Professor and includes seven whole-time Lecturers and eight part-time Lecturers.

The syllabus which was recently adopted for the M.A. Examination includes History of Economic Thought, Economic Theory (two papers), Public Economics, Modern Economic Development, Indian Economics and one special subject consisting of two papers, *e.g.*, Currency and Banking, International trade and Tariff, Statistics and Demography, Mathematical and Analytical Economics, Agricultural Economics and Labour Problems. The object of the old as well as the new syllabus prescribed for post-graduate students in Economics was and is to strengthen further their grounding in theory to which they had already been introduced in the B.A. stage and to acquaint them with the details of its application in some important fields of activity both in India and abroad. Lord Minto in announcing the Government grant for the establishment of the Professorship in 1908 had observed: "I trust that this new Professorship will put within reach of the students of this University opportunities for obtaining that practical instruction which commercial enterprise and universal competition will more and more require." If by practical instruction was meant training in some field which would immediately enable a student to participate in any commercial or industrial venture, the result was not attained. Nor was it intended to be attained. Evidently at the back of the mind of the Government of India there was some confusion between the study of Economics and the study of, and training in, business administration. The University at a later stage tried to provide for the latter kind of training by instituting a separate course of post-graduate studies in Commerce. But so far as students of Economics were concerned the object of the University has been, it may be repeated, to provide them with a thorough grounding in all aspects of economic theory and organisation so that after passing out of the University they may tackle any problem of economics which may confront them as independent investigators, as officers of the Government, as members of industrial and business firms and lastly as advisers on labour problems either to trade unions or industrial establishments. In fact students trained in Economics in the University of Calcutta have had easy success in these different fields.



Reading Room. University Law College Library, Darbhanga Building

Original investigation and research in economic problems which it was the intention of the University to foster through the Department have been systematically carried on by the teachers and research scholars attached to it. Conditions of service of the Minto Professor of Economics were very stringent in this respect. During his term of five years he was to deliver courses of public lectures on some important economic problem of India and these lectures were later to be embodied in published books. Any Professor aspiring to serve the University for more than one term had to fall in with these conditions and the work which he had to put in was a stimulus to his colleagues in the conduct of their researches. It will be evident from the appendix that valuable contributions have been made by the members of the Department of Economics either in the form of books or in the form of articles and brochures.

DEPARTMENT OF POLITICAL SCIENCE

The Department of Political Science was started with effect from the beginning of the current academic session (1948-49). This is not, of course, to signify that there were no arrangements before it for teaching and research in several branches of the subject. Some important branches have been in fact incorporated in the syllabus of History, *e.g.*, Comparative Politics, International Law, and Constitutional Development of both India and other British Dominions. The subject was again given systematic attention in the syllabus prescribed for Economics (Group B). Students there had in addition to a detailed study of principles of Economics and some important factors of Indian Economics were required to study Political Theory both in its historical evolution and in its current contributions. They had besides to read one of the several special subjects, *e.g.*, Public International Law, Comparative Politics, Sociology and Constitutional and Administrative Law.

Importance of the subject was, however, daily growing and necessity was felt for releasing it from its dependence upon " allied disciplines of History and Economics." In this regard some of the Universities in the United Provinces had taken the lead and started separate Political Science courses for the degree examinations. In Calcutta for years the opinion was held that Political Science by itself might not have that dignity and status as a discipline which

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existing combined courses were known to possess. But ultimately here also the ice thawed and opposition to a separate Political Science course in the post-graduate stage melted away. Political changes in 1947 and the consequent new status which India achieved stimulated the demand for this separation so that students might concentrate in different branches of the subject and acquire greater mastery of political theory, constitutional organisation, public administration including local government and finally in international relations. India which is now a full-fledged international person expects an increasing number of men to be trained in problems of foreign affairs and in the methods of conducting international relations. An independent Political Science course would in this regard offer to post-graduate students an opportunity which was available to them before only to a limited and inadequate degree.

Of the eight papers incorporated in the syllabus, six are compulsory and include such branches of the subject as Social and Political Theory, History of Political Thought, Current International Relations, Comparative Government, Governments of India and Pakistan and Public Economics including Public Finance. There are in addition two special subjects to be taken by each student from among Early Political Institutions, Public International Law, Indian Political Thought, Public Administration and Administrative Law, Constitutional Law, Sociology and Social Psychology, Social Anthropology and Applied Sociology, Local Government, Private International Law, and History of Diplomacy.

Mr. D. N. Banerjee, who had been the Head of the Department of Political Science and Provost of Jagannath Hall, University of Dacca, was brought in as University Profesor of Political Science. He as Head of the Department is assisted for the time being by three whole-time Lecturers and nine part-time Lecturers.

DEPARTMENT OF COMMERCE

In announcing the decision of the Government to accept the proposal of establishing a Chair in Economics, Lord Minto, after whom the Professorship was named, observed as Chancellor of the University that it " will put within reach of the students of this University opportunities for obtaining that practical instruction which commercial enterprise and universal competition will more and more

require." In other words he evidently thought that the economic studies which the Professor would guide would be practical in character. He had possibly in mind a kind of syllabus for students of Economics, which is as a rule followed and acted up to by students of commerce and business administration. It did not, however, take long to appreciate the fact that two studies were different and the needs of purely commercial studies could not be met in the Department of Political Economy.

Accordingly in 1922, a Department for M.A. studies in Commerce was inaugurated. The syllabus drawn up was far more practical and realistic and was suitable for preparing students for responsible offices in commercial and mercantile establishments as also for an independent business career. The first four papers which are compulsory are concerned with Realistic Economics, Accountancy, Commercial Law and Banking. As for the other four papers students are allowed alternatives. They may choose any four of the following: (*i*) Industrial Structure and Development, (*ii*) Statistics, (*iii*) Economic Geography, (*iv*) Tariffs, (*v*) Agricultural Economics, (*vi*) Currency, (*vii*) Public Finance, (*viii*) Auditing, (*ix*) Business Organisation, (*x*) Transport, (*xi*) Economic History and (*xii*) Insurance.

The Department has not yet had any Professor of its own to lead and guide its activities. Head of the Department of Economics has been the head of the Commerce Department as well. As for Lecturers also there is only one whole-time man in grade in the Department, most of the work being consequently done either by part-time Lecturers drawn from affiliated colleges and the business world or by teachers whose services are requisitioned from other Departments. The University is contemplating a reorganisation of the Department and it is likely that along with better arrangements for staffing the Department its syllabus also will be recast. There are actually some who advocate the establishment of a separate Commerce Faculty. At present all problems relating to commercial studies come up for consideration by the University through the Faculty of Arts. This is regarded by them as a drawback which should be made good. If Commerce has a Faculty of its own, it may be possible for the University to devote greater attention to this branch of study and create an integrated commerce course in its under-graduate and post-graduate aspects.

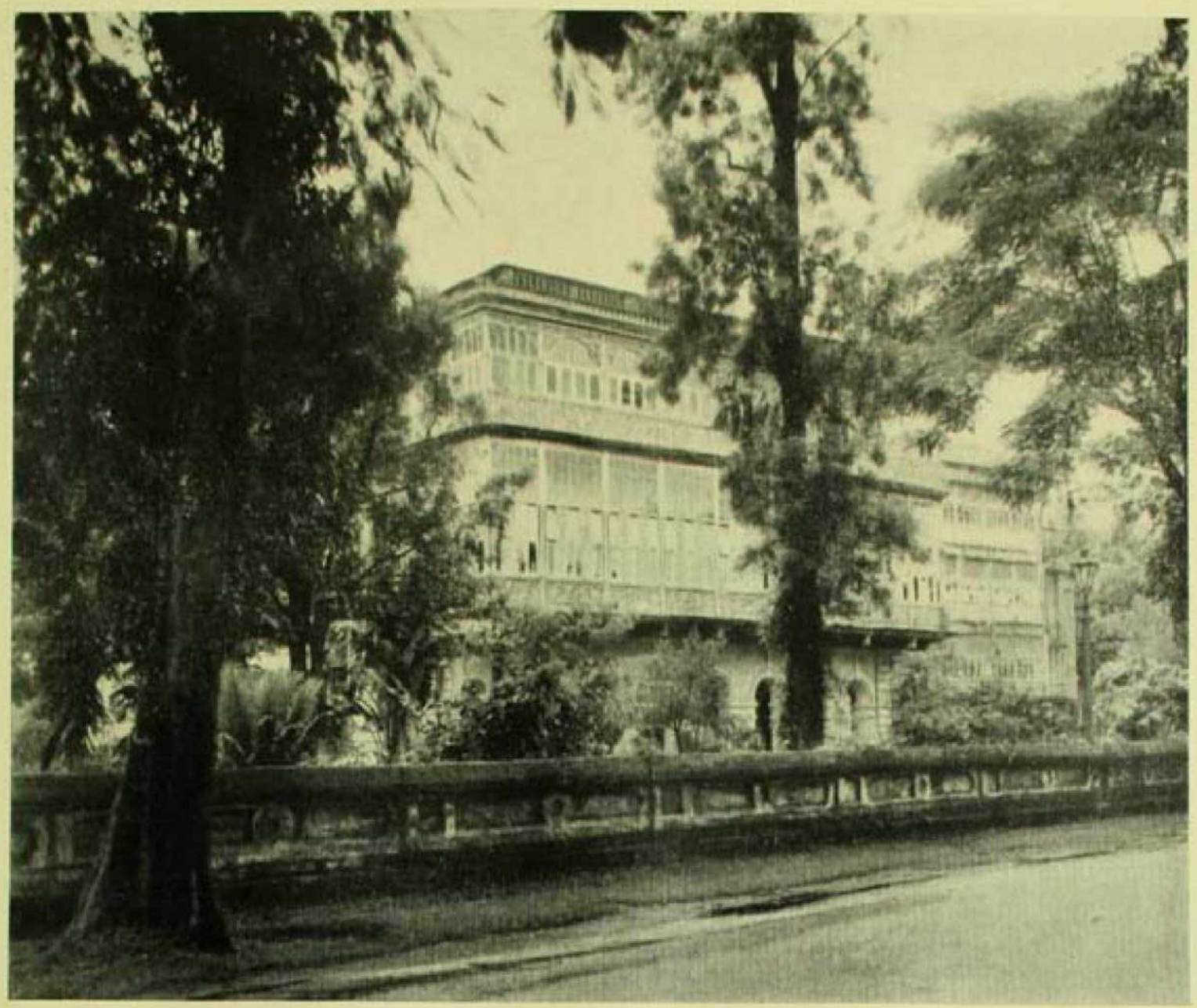
DEPARTMENT OF ANTHROPOLOGY

At the time the University undertook post-graduate teaching and research, its authorities were convinced that Anthropology was one of the appropriate subjects to be included in the syllabus. India has been the meeting ground of many races, each with peculiarities of its own. Even now there are tribal peoples scattered throughout the country with manners and customs of their own and with economic life different from that of the rest of the people. If they are to be integrated into Indian social life, it is necessary to have a correct acquaintance with their existing conditions. Nowhere on this account is the study of Anthropology more appropriate than in India. But due to financial stringency and lack of trained men the Department could not be organised until 1920.

In 1920 when the Department was set up, the late Rai Bahadur Ramaprasad Chanda who had already established a name in Indian Ethnography was placed in its charge. He had, however, to leave the University shortly afterwards to join the Archaeological Survey of India. The late Rao Bahadur L. K. Ananta Krishna Iyer took his place and associated with him were such other pioneers in the study of Anthropology as the late Rao Bahadur B. A. Gupta, the late Mr. B. C. Majumdar, the late Mr. Saratchandra Mitra and Dr. A. N. Chatterjee who is still attached to the Department. The Department is now headed by Professor K. P. Chattopadhyaya and has a staff of one Professor, three Lecturers and four Assistant Lecturers and Demonstrators.

At the start, equipment of the Department was small but it was gradually increased and to-day it can boast of an excellent museum and a laboratory of its own. It has also a well-equipped photographic dark room with all its accessories and a number of Cameras including a Cine Camera.

In view of the small equipment in the Department in its earliest stages, research work was confined for some time to Ethnography and Physical Anthropology. But as men became trained and equipment grew, field work on modern lines came to be undertaken and social Anthropology attracted research students. Practical training in field investigation has been for two decades an essential element of Anthropological studies. Students are taken annually to an aboriginal area in Assam or in Chota Nagpur to this end. They are required to collect information on the economic life, social organisation, cultural outlook and religious beliefs and practices of a tribe under the guidance of one or more teachers of the Department.



University College of Science, Palit House, Ballygunge

Each student who has this advantage of coming into close contact with a primitive group of people and acquainting himself with the problems of its primitive life has to submit a report from the data he may have collected.

Students turned out by the Department have not only the usual benefit of an intensive study of Anthropological subjects but their training in field work and their acquaintance with tribal life make them useful in economic and social surveys and in planning welfare work. Already the Department of Fisheries and many Industrial concerns have recognised this usefulness of the students trained by the Department by appointing them as welfare officers. Many of the students have also very naturally been absorbed in the Department of Anthropology, Government of India. It is, however, regrettable that different Provincial Governments have not yet given up the old habit of appointing as special officers for tribal administration men who have had no Anthropological training. This is a drawback which, it is hoped, will be made good in the near future.

In the appendix are inserted specimens of books and papers published by the members of the Department. They would show the voids of knowledge which have been filled by their investigations. Much of the information which we have to-day about tribal life in eastern India is derived from such investigations. It need not be emphasised that the results of these researches have been of considerable assistance to different Governments in the formulation of their policy regarding some aspects of tribal administration. It should only be mentioned in this connection that Dr. J. K. Bose's Monograph on Garo Law of Inheritance and Professor Chattopadhyaya's note on Korku marriage customs and economic conditions were written at the request of Provincial Governments. The work of the Department regarding people uprooted by the Famine of 1943 should also be commended here. Staff and students made a detailed survey of the destitute families and have drawn up a detailed report regarding the causes and effects of the calamity. This report prepared under the leadership of Mr. T. C. Das, M.A., has been for sometime in the press. A separate plan for the rehabilitation of those destitutes who survived the famine has again been drawn up and published by Professor Chattopadhyaya.

DEPARTMENT OF ISLAMIC HISTORY AND CULTURE

This is one of the new Departments, being established in 1940. The idea behind it was, however, old. The importance of the study of this subject was fully appreciated when arrangements for post-graduate teaching were first made under the auspices of the University. It should be borne in mind that the years 1908 to 1916 were a period of transition during which foundation was being laid for the University to become a teaching and research institution. It was significant that during this period the late Mr. S. Khuda Buksh was appointed Assistant Professor of History to lecture on the early history of Islam and its cultural and institutional ideals. But for more than two decades the study of Islamic History and Culture remained either part of the General History syllabus or part of Arabic and Persian Studies. It could not be developed into a subject by itself, to be studied on a wide and comprehensive basis.

The idea of giving it an independent status was, of course, always there. It should be mentioned in this connection that in 1923 Sir Asutosh Mookerjee emphasised, in an address to the Bihar and Orissa Research Society, the opportunity which awaited scholars for research in the unexplored field of Islamic History and Culture. It was expected that on his initiative provision would be made for a comprehensive and detailed study of the subject in the University of Calcutta. But his untimely death in 1924 postponed the fruition of his idea. About a decade later when many of the difficulties experienced in the working of Post-Graduate studies were removed, Mr. P. N. Banerjee, the present Vice-Chancellor, suggested the establishment of a separate department of Islamic History and Culture for the study of the subject on a comprehensive basis. But lack of funds still stood in the way and the difficulty was not got over until the late Sir Azizul Huq became the Vice-Chancellor in 1939 and took up the matter with the Government of Bengal. At last in 1940 the Department was established though for three years to come it could be run only with the willing co-operation of the other Departments.

The courses of study which the Department has undertaken to teach include the Rise of Islam and the Caliphate, History of Islam in India, Modern History of such Islamic countries as Turkey and Iran, Geography in relation to Islamic History, Islamic Religion in principle and practice, Islamic Philosophy, Administrative and Political Organisation under Islam and some other ancillary subjects. The Department is staffed by one Professor, four whole-time Lecturers, one whole-time Assistant Lecturer and six part-time Lecturers. Besides, one Research Fellow and one scholar are attached to

the Department. Appointment to the Professorship could not be made because of certain difficulties and the Asutosh Professor of Arabic and Persian studies has been acting as the head of the Department.*

During the nine years that the Department has been in existence it has made itself increasingly popular to advanced students. Apart from the fact that Islamic History, both in its early growth in the land of its origin and in its later expansion to India, offered for scientific exploration a rich and fruitful field which no University could ignore, there was also a special objective behind the establishment of the Department. It was expected that a liberal and comprehensive study of Islamic History and Culture would help considerably in removing many popular misconceptions about the teachings of Islam and its history and might contribute in a handsome manner to the growth of inter-communal toleration and understanding. The last few years of Indian history have, however, been abnormal in more than one sense and during the hectic days through which people have passed it was not possible for the Department to exert its liberalising influence as much as in other circumstances it might. But as the last embers of the communal conflagration are dying out, we may certainly look forward now to the Department being one of the outstanding liberalising forces in the country.

DEPARTMENT OF ANCIENT INDIAN HISTORY AND CULTURE

In his Convocation address in 1911, the Vice-Chancellor, Sir Asutosh Mookerjee, regretted the exclusion of any systematic study of our ancient history and culture from the existing syllabus. He thought it was time for the University to make good this glaring and unfortunate defect, and make provision for a comprehensive study of Ancient Indian History in the Post-Graduate stage. "I take the term History," he observed, "in its widest sense as inclusive not only of political history and history of external relations, but also history of culture, of literature, of philosophy, of arts, and of the Sciences . . . That Indian History in this sense has a special claim on Indian learned institutions will hardly be contested." Accordingly he welcomed with all his cordiality a handsome donation from that openhanded benefactor, the late Maharaja of Cossimbazar and utilised it for the purpose of promoting

* At the initial stage Sir Azizul acted himself as Head of the Department.

research in the domain of the history of ancient Indian Mathematics and Astronomy. In the year following the Professorship of Ancient Indian History and Culture named after the then Governor of Bengal, Lord Carmichael, was created and soon afterwards (1913) Dr. George Thibaut who had already given striking evidence of original scholarship in the realm of Sanskritic studies was appointed as the first Carmichael Professor. His place was taken in 1917 by Dr. D. R. Bhandarkar who continued in the chair till 1936 in which year he was succeeded by the present incumbent, Professor H. C. Raychaudhury, M.A., Ph.D.

At first the duties of the Carmichael Professor were to undertake research work himself, deliver lectures to learned audience on subjects on which he had carried on original investigation and to guide research studies of advanced students. He had no Department to lead and no classes to take. But soon Ancient Indian History and Culture was included as a special paper in the General History course and shortly afterwards a comprehensive syllabus was drawn up in order that in their M.A. stage students who had necessary equipment and interest might concentrate on this subject alone. So an M.A. degree in Ancient Indian History and Culture was instituted, though the teachers lecturing on different aspects of the subject continued to be part and parcel of the History Department. It was only in 1932 that a separate Department of Ancient Indian History and Culture was constituted with a full contingent of staff of its own. The Department is headed by Carmichael Professor of Ancient Indian History and Culture and includes two other Professors. There are also at present in the Department four whole-time Lecturers, three Assistant Lecturers, two part-time Lecturers and three Lecturers from other Departments.

The syllabus drawn up for the Department has been comprehensive. The courses of study include general history of Vedic and Epic India ; political history of India from 600 B. C. to the Muhammadan conquest ; historical geography of Ancient India ; Indian epigraphy ; numismatics ; fine arts and iconography ; social and constitutional history of Ancient India ; Vedic and Puranic religion, Jainism, and Buddhism ; Hindu Mathematics and Astronomy; and Anthropology. Each of the teachers taking one or more of these subjects has specialised in his branch or branches of study and has done intensive research work in such branches. His lectures are in fact very largely based upon materials he has himself collected by detailed investigation. Ancient Indian History classes are as a rule small and are treated as seminar classes in which it is possible for the Professors and Lecturers to

arrange and clarify their own ideas and information while enriching the mind of their students. This process is carried further in contact with the research scholars and fellows attached to the Department. Their number is small in view of severe competition for stipends for research from all Departments. But the few (at present three) who are associated with the Department are not only a source which has to be tapped for replenishing the staff when vacancies occur but are also a great help to the teachers of the Department in carrying on their own research investigations. One of them who had been to Siam and speaks Siamese is working on a subject relating to Indo-Siamese cultural relations.

The Department has during the last three decades of its existence contributed much to the enrichment of our knowledge of the ancient history and culture of this country and to the awakening of the enthusiasm of the people for the dynamic civilisation which India developed in ancient times. Its members and research scholars have exploited all sources, literary, numismatic, iconographic, and archaeological, in throwing new light on different aspects of this civilisation. It should be emphasised in this connection that the association of the Bagiswari Professor of Fine Arts with the Department has added considerably to its strength and helped it to a great extent in exploiting the sources which ancient art treasures happen to provide. The establishment of the Asutosh Museum whose activities are recounted elsewhere has given further impetus to the work of the Department in this line.

An illustrative list of books and papers published by the members of the Department is given in the appendix. Even this list which had to be harshly reduced for the saving of space will testify to the vast changes which the Department has helped in augmenting our knowledge of the set-up of things in ancient times in this country. It should, however, be stated here that much of the work which the members of the Department desire to undertake involves a large expenditure of money which the University cannot afford in the present state of its budget. With greater financial resources at the disposal of the Department, it may certainly make itself far more useful in the future.

DEPARTMENT OF PALI STUDIES

During the first forty years of the establishment of the University, importance of Pali as a subject of study was not much appreciated, and there was no provision made for its inclusion in the curricula for the M.A. Examination. In 1900, however, arrangements to this effect were made and in that year Mr. Satischandra Vidyabhushan was admitted to the M.A. degree in the subject. Of the scholars who followed his example in subsequent years, Mr. Harinath De whose great cultural and linguistic attainments elicited high appreciation both at home and abroad was certainly the most outstanding. Mr. Vidyabhushan who was later one of the first Doctors of Philosophy of the University and whose erudition was honoured by the Government by the title of Mahamahopadhyaya was deeply impressed with the value of Pali as a cultural medium and brought home to Sir Asutosh Mookerjee, who became Vice-Chancellor in 1906 and transformed during the next few years the position of the University as an instrument of the advancement of learning, the necessity of making proper arrangement in the University itself for teaching the subject. Accordingly, as it has been pointed out elsewhere, arrangements came to be made to this effect in the University, and since 1917 it has been a Department under the supervision and control of the Council of Post-Graduate Teaching in Arts.

In establishing the Department of Pali Studies, the objective of the University was to open out to its advanced students an opportunity for a comprehensive study of that distinct and widespread civilisation which Buddhism represented. From the 5th Century B. C. to the 12th Century A. D. Buddhism moulded thoughts, ideals and literatures of the entire Far East. Influencing at first only a handful of immediate disciples in Eastern India, the teachings of Sakya Muni spread in course of centuries across the seas and snows. Even to-day millions of people inhabiting vast tracts of land owe allegiance to Lord Buddha and the system of life he prescribed. History of Buddhism is on this account not only a story of the growth of a great civilisation but also a story of cultural contacts, through the medium of this expanding civilisation, between different groups of people in that vast region commonly known as the Far East. The Department of Pali Studies, which is intended to provide opportunities for the study of these cultural contacts, has a significance of its own in these days when contacts between India and other Asiatic countries are being re-established and when efforts are being made to discover old and new basis of intellectual co-operation between them.

Buddhist civilisation whose study the Pali Department is to foster is a vast and intricate subject. It has to be approached from such varied aspects as linguistic, literary, epigraphic, social, religious, historical and philosophical. The original sources of knowledge in this regard are accessible through such languages as Pali, Prakrit, Mixed Sanskrit, Sanskrit, Tibetan and Chinese. It is obvious that no single Department with its limited staff and equally limited other resources can do justice to a subject with so many ramifications. It was, however, necessary that there should be a central Department specially intended to guide studies and conduct researches in Buddhism and the Pali Department was given that role. But it was to carry out its responsibilities with the assistance and co-operation of such sister Departments as those of Sanskrit, Ancient Indian History and Culture and Comparative Philology.

The syllabus of Pali for the M.A. Examination prepared in 1900 was revised three times after it—first in 1906, then in 1917 and finally in 1936. Of the eight papers included in the syllabus to-day for post-graduate students five are compulsory and they are concerned with the study of different aspects of Buddhism. The remaining three papers are devoted to one of the five groups of studies, *e.g.* (*i*) Literature, (*ii*) Philosophy, (*iii*) Epigraphy and History (*iv*) Mahayana Literature and Philosophy and (*v*) Art and Iconography. The object in view in each of these groups is to develop capacity in the students for comparative study of the different subjects *e.g.*, languages, literatures, philosophies, arts, religions and civilisations.

MM. Dr. Satischandra Vidyabhushan, M.A., Ph.D. was the first Professor in the Department. After his death in 1924, Dr. Benimadhab Barua, M.A., D.Lit. (London) was placed in charge. He was raised to the status of a Professor in the following year and served in that capacity with great distinction and ability till his death which took place suddenly and unexpectedly early in 1948. Since then Dr. Nalinaksha Dutt, M.A., D.Lit. (London) has been in charge. In addition to the Professor there are two whole-time Lecturers and one whole-time Assistant Lecturer. Lecturers from other Departments have also their services requisitioned from time to time by the Pali Department. Besides, there are three Research Fellows who take part in teaching work. It should be further borne in mind in this connection that associated with the Department of Pali are two feeder Departments of Tibetan and Chinese. In addition to two Instructors maintained in these Departments two of the Research Fellows of the Pali Department take part in their work and utilise Chinese and Tibetan sources for their research work.

A select list of research publications of the members of the Department is inserted in the appendix. The list, it should be further emphasised, is not exhaustive but only illustrative. Publications fall into four categories—(*i*) Original Publications, (*ii*) Compilations and Translations, (*iii*) Critical Editions and Restorations of Texts, literary and epigraphic, (*iv*) Collection of New Materials.

DEPARTMENT OF COMPARATIVE PHILOLOGY

So long as the Act of Incorporation of 1857 was in force, Comparative Philology was not an independent subject for the Master of Arts Examination of the University. In connection with ancient and modern literatures philology had, of course, to be studied by advanced students. But naturally such study could not be of a comprehensive character. Only after the adoption of the New Regulations under the Indian Universities Act of 1904 Linguistics was made an independent subject under the name of Comparative Philology for the M. A. Examination. Even then it took time for the University to make due arrangements for the teaching of different aspects of the subject. In fact initial steps in this regard were taken in 1910 and in subsequent years further additions were made to the arrangement. In the Convocation addresses of the Vice-Chancellor during these years there are references to the extension which was being made from time to time to the teaching facilities by the University. Such references bring out into relief the importance which the University placed on these linguistic studies.

In 1913 Professorship of Comparative Philology was created and Dr. Otto Strauss was appointed to it. His tenure of office was not long. Being of German nationality, he was treated as an enemy alien by the Government on the outbreak of the first World War in 1914. The chair remained vacant for sometime after that but the teaching work was continued by other members of the staff including Mr. Roby Dutt. In 1917 post-graduate studies were placed on a new footing and on that occasion the vacant Professorship of Comparative Philology was also filled by the appointment of Dr. I. J. S. Taraporewala. Further, Comparative Philology was made

a separate Department under the control of the Council of Post-Graduate Teaching in Arts. Four years later (in 1921) Dr Suniti Kumar Chatterji who had an intensive training in Linguistics both in Calcutta and in London and had already made some distinct contributions to our knowledge of Indian Linguistics was appointed to the Professorship of Indian Linguistics and Phonetics which was endowed by the zamindar of Khaira. There were, therefore, for some years to come two Professors in the Department. But when sometime later Dr. Taraporewala left the University to become the head of a College in Bombay, the Professorship left vacant thereby was not filled, and since then Professor S. K. Chatterji has been in charge of the Department, which has also two whole-time Lecturers. All of them not only carry on with the work of the Department but also help in the teaching of philology of classical and modern languages in other Departments.

In 1924-25 after the death of Sir Asutosh Mookerjee on whose initiative the Department had been set up, enemies of post-graduate teaching and research made a desperate attempt to do away with the Department. But this unimaginative effort, inspired by narrowness of outlook, was frustrated by the majority of the Senate who were convinced, as Sir Asutosh had been years before, that in no country a separate Department of Linguistics was a greater desideratum than in India which could boast of several highly developed classical languages and where there were at least fifteen major modern languages and about three hundred minor languages. The scientific study of these languages should naturally be included in the curriculum of higher studies in a University like that of Calcutta. So the Department survived and to-day by the contributions it has made to the sum total of our knowledge of the origin, development and characteristics of languages, it has not only justified its existence but has become recognised abroad as the best centre of linguistic studies in Asia.

The number of students which Comparative Philology could attract to its classes has always been small. There was of course nothing surprising in this. So highly technical a subject could never aspire to make itself popular. But there was surprise in this that from year to year the subject has attracted any student at all. There has been in fact a steady flow, which testifies to the hunger for knowledge which has grown in the country. A select list of research publications of the teachers of the Department and its research students is inserted in the appendix. It is only pertinent here to point out that through the efforts of the Department some new windows of knowledge have been opened and some new approaches to old subjects made. Professor Chatterji's

Origin and Development of the Bengali Language is an important landmark in the history of the study of Indian Linguistics. Dr. Sukumar Sen's "The Old Persian Inscriptions of the Achaemenian Emperors" represents a pioneer study of the subject from the Sanskritic point of view.

DEPARTMENT OF PSYCHOLOGY

The Department of Psychology and its Laboratory were set up in 1916 and were the first of their kind in India. The science of Psychology which was making rapid progress in western countries on new lines was till then in India studied only as a part of the Philosophy course. To give it a new and independent status and to arrange for its cultivation on a practical laboratory basis required a good deal of constructive imagination and courage thirty years ago. But such imagination and courage were not lacking in the leadership of the University in that glorious decade of University's history, when it was being transformed from an affiliating and examining body into a teaching and research institution. Old courses of study were then reformed and overhauled and new subjects which required study and investigation were introduced. It was felt that the cultivation of the science of Psychology on a laboratory basis might yield results which might be fruitfully employed for the improvement of the conditions of society. This was a primary object with which in view the University decided to open this Department and its Laboratory.

It was of course not all who were yet convinced as to the utility of the Department. Some who had influence in the counsels of the University in fact believed that the Department was only a white elephant and might be got rid of without regret. After the unfortunate and untimely death of Sir Asutosh Mookerjee in 1924, they actually tried to do away with the Department and it was only with difficulty that there was a renewal of the lease of its life. But the Department did not take long to justify its existence. The contributions which it made to knowledge elicited recognition and praise from far and near. Additions were also gradually made to its staff and laboratory and it is a matter of congratulation to-day that the institution which had such a humble beginning in 1916 enjoys to-day the prestige of being the biggest and best equipped laboratory in

India. Since its inception it has given training to students from all parts of the country and students so trained in its laboratory have been mainly instrumental in starting and conducting psychological laboratories in other centres of learning in India and Pakistan.

The syllabus for the post-graduate classes includes General Psychology, Physiological Psychology, Abnormal Psychology and Genetic Psychology as compulsory subjects. For the fifth paper students may choose one of these subjects:—(*i*) Educational Psychology, (*ii*) Industrial and Vocational Psychology, (*iii*) Advanced Abnormal Psychology, (*iv*) Indian Psychology and (*v*) Social Psychology. Sixth, seventh and eighth papers are taken up with practical work. In 1921, under-graduate classes had to be opened both as a feeder to the post-graduate classes and also to fill up a gap in under-graduate studies. For the Pass Course (as in other subjects) there are three papers (two Theoretical and one Practical) and for the Honours Course six papers (four Theoretical and two Practical). The four Theoretical papers include the study of General Psychology, Genetic and Abnormal Psychology, Social Psychology and History of Psychology and Educational and Industrial Psychology.

There is again a one-year Certificate Course for Applied Psychology. The syllabus provides for examination in five papers, three being Theoretical and two Practical. In the Theoretical papers two subjects are compulsory, *e.g.*, General and Applied Psychology and Social and Abnormal Psychology. In the third paper candidates may choose one of these alternatives—(*i*) Vocational and Industrial Psychology, (*ii*) Social Psychology, (*iii*) Education of Defectives and Mental Deficient. It should be stated in this connection that the Section of Applied Psychology was added to the Psychology Department in 1938 for carrying out researches in the field of vocational and industrial psychology and for giving practical help to individuals and organisations. There is a clinic attached to the Applied Section which the members of the public seeking help may consult. This clinic works in close collaboration with other psychiatric clinics in Calcutta. There is a proposal to develop the Applied Section further and introduce full-fledged post-graduate courses in Applied Psychology.

The Department has been active in various directions since its inception. Development of the Applied Section which is now well under way testifies to it. It was again mainly through the efforts of the members of its staff that the Indian Psycho-analytical Society was founded in 1922. The Indian Journal of Psychology was started in 1926 on the same initiative and the scientific journal *Samiksa* which is being brought out under the auspices of the Indian Psycho-analytical Society has also the same inspiration and support.

A fair amount of first rate theoretical and practical work has been done in the Calcutta Laboratory by the members of the staff on various problems relating to perception, memory, emotion, psychophysics, mental testing, wish and allied themes. Published papers have been favourably reviewed in the technical journals abroad. An illustrative list of books and papers written by members of the staff is inserted in the appendix. Elaborate experiments on psychophysics have been undertaken and successfully concluded throwing new light on the subject. Many new types of appratus have been devised and locally manufactured. These are being used in this laboratory as also in other laboratories with satisfactory result. Mention may be made of the following apparatuses devised here: Big muscle Ergograph, Exposure Apparatuses of different types, Gauss Curve Apparatus, Campimeters, Binocular Vision Apparatus, Aesthesiometer and Time-markers. Research works on different problems have been and are being carried out. Certain problems pecuiiar to India and Indian Culture, *e.g.*, Yoga, are being investigated in the laboratory. A Group Test of Intelligence in Bengali has been constructed.

Since its inception the Applied Section has been engaged in devising, administering and standardizing mental tests. After years of strenuous work it has succeeded in standardizing an Individual Intelligence Test in Bengali. Many new tests including performance tests and tests of personality have been devised and are being used with good results. Individual workers have been engaged on their own initiative in devising and administering tests for the Tram and Bus drivers. The work is being partly financed by the Indian Research Fund Association. Individual efforts supported by the West Bengal Government have been made to find out suitable candidates for admission to the medical institutions.

Not infrequently individual members of the public as also public and private institutions approach the Department for the solution of difficulties and problems arising in their respective spheres. During the last war some members of the staff served as technical officers in the psychological service of the war Department. Some are now serving in the Nutrition Committee of the Public Health Department and similar public utility organisations. The Police authorities have on many occasions approached the Department for helping them in the detection of criminals. The question of testing criminals in the jails is being discussed with the authorities at present.

At the time the Department was started Dr. N. N. Sengupta, M.A., Ph.D., who had his research training at Harvard University, became the Lecturer-in-charge. For lack of funds, no professorship could be created till 1938. Dr. Sengupta left this University in

A View of the Asutosh Building

1929 and his place was taken by Dr. G. Bose, M.B., D.Sc., who has led the Department since then first as Lecturer and since 1938 as University Professor of Psychology. He is assisted by a competent staff of Lecturers, Assistant Lecturers, Instructors, Demonstrators and Computors.

DEPARTMENT OF SANSKRIT

Arrangement for the higher study of Sanskrit had existed prior to the creation of elaborate facilities to that end by the University. Sanskrit College had been established early in the last century and after the University was incorporated in 1857 this College provided higher instruction in Sanskrit in two branches. In one branch teaching was undertaken strictly on traditional lines and in another branch curriculum fixed by the University for the B.A. Honours and M.A. Examinations was followed. Besides the Sanskrit College, there were again numerous *tols* in different places in the country, some of which carried on higher studies of Sanskrit in one or more of its aspects. In some of the affiliated colleges also arrangements had been made for the study of Sanskrit in its higher rungs.

But when the New Regulations were adopted under the Indian Universities Act of 1904, the University felt that there were several very important reasons for it to provide facilities for higher teaching of Sanskrit under its own auspices. First, the teaching of the Vedas had been sadly neglected so far and some arrangement for the revival of Vedic studies was very much necessary. Secondly, it was essential that the University should take the lead in teaching several branches of Sanskrit according to modern scientific methods which were not as a rule followed even in the College Department of the Sanskrit College and other affiliated colleges not to speak of the *tols* and other centres of Sanskrit learning where old traditional lines were unflinchingly stuck to. Thirdly, an atmosphere for original research should be created in the province and this could best be done only by the University taking over higher instruction under its own care. It was absurd that while Western Universities would be publishing the results of scientific study and research by their own scholars in different branches of Sanskritic learning, the Indian Universities would help only in passing them on to their scholars, without doing anything to add to the sumtotal of knowledge.

The Sanskrit Department of the University had a small beginning. It started with a provision for the study of the Vedas for which little opportunity was available elsewhere. In 1907, the University appointed Acharya Satyabrata Samasrami who had devoted a lifetime to the Vedic studies to deliver lectures to advanced students on the Vedas. Through the munificence of the late Sreegopal Basumallik, the University was further enabled to appoint a brilliant graduate of the University in the person of Pandeya Ramavatar Sarma to lecture on Vedanta Philosophy. This was the nucleus of the great Department which was gradually to emerge.

During the next few years stimulus was given to Sanskritic studies by the appointment as University Readers of many Professors of European Universities who had become distinguished by their researches in Sanskritic subjects. Professor Pischel was invited to deliver a course of lectures on the Philology of Prakrit languages. Unfortunately he died on the way to Calcutta at Madras. His lectures, however, survived. Dr. Hermann Oldenberg of the University of Gottingen whose versatility need not be emphasised here "gave a masterly sketch of the method employed and results obtained by European scholars in the domain of old Indian grammatical and mythological research" as a Reader of the University. The other German scholar who came about this time to the University as one of its Readers was Dr. Hermann Jacobi of the University of Bonn. He delivered a course of lectures "on the history and development of Indian Alankara." Of the other western scholars who were invited to deliver Readership lectures on Sanskrit or Sanskritic subjects were Professor Sylvain Levi of the College de France and Professor Winternitz. It is a matter of great satisfaction that the History of Sanskrit Literature which this last scholar had started was finished after his death by two scholars of eminence of this University. European scholars who undertook the responsibilities of Readership in this University made definite contributions to the growth of modern Sanskritic studies with which we are familiar today. Apart from creating that atmosphere in which alone there might be higher pursuits of learning, they initiated our scholars to modern critical and historical methods to which Sanskritic scholars in this country had not been amenable before.

As in respect of other Departments so in the case of Sanskrit also, the year 1917 was a landmark. The efforts made and the steps taken during the preceding few years for the provision of higher teaching and research in Sanskrit were stabilised by the creation of a Department of Sanskrit under the Council of Post-Graduate Teaching in Arts. A comprehensive syllabus was now drawn up for conducting M.A. studies in Sanskrit in nine groups. The first four papers

were compulsory for each group. But the remaining four papers were to be studied in one of the nine groups, *e.g.*, Literature, the Vedas, Smriti and Mimansa, Vedanta, Sankhya-Yoga, Nyaya-Vaisesika, General Philosophy, Prakrit, Epigraphy and Iconography. This arrangement continued till 1940 in which year the Department was further developed by the addition of five new groups, *e.g.*, Vaisnavism, Hindu Law, Jainism, Saivism and Mixed.

The Department at first consisted only of Lecturers. It was in 1929, that Asutosh Professorship of Sanskrit was created and the first incumbent of the chair was MM. Dr. Bhagabat Sastri, M.A., Ph.D., who was followed in 1934 by Dr. Prabhatkumar Chakrabarti, M.A., Ph.D. After the premature and much lamented death of the latter only one year after his appointment as Asutosh Professor MM. Pandit Vidhusekhar Sastri was appointed to the Chair and continued till 1944. The present incumbent of the Chair is Dr. Satkari Mookerjee, M.A., Ph.D. Besides the head, there are nineteen other members of the staff, six of them being whole-time Lecturers in grade.

One of the important features of the Department is its Manuscript Section. The Manuscript collection is large and is growing every day. The Section includes a collection of Tibetan Xylographs, which is looked after by a Curator who is also a Lecturer in the Department. It should also be stated in this connection that the Department now includes an instructor in Tibetan. There is further in the Section a good collection of Buddhist Agamas, presented to the University by the Government of China. Many of the manuscripts which have never before been published required careful editing and publication. To this end the Department set up a publication committee under whose auspices the publication of a series called the Asutosh Series has already been undertaken. The head of the Department is the General Editor. Two works have already been published and a third is in the press.

DEPARTMENT OF ARABIC AND PERSIAN

The importance of Arabic and Persian studies need not be emphasised. Much of what is worth knowing about the attainments of the medieval and the ancient world can be known and understood only through the medium of Arabic. As for Persian, it is only enough to say that it is the chief medium of our knowledge

of the history and social life of Iran as also of India through several centuries. Both these languages again have been cultivated for hundreds of years almost as much in this country as in the lands of their origin and development. It was, therefore, as a matter of course that they became incorporated in the curriculum of higher studies prepared by the University after its establishment in 1857. But votaries of oriental learning who studied these subjects with interest and enthusiasm were as a rule strictly orthodox in the rules of life they followed. Accordingly they preferred to continue their studies of Arabic and Persian languages and literatures in the traditional way in Madrassas and were unwilling to follow them up according to modern methods on which the University insisted. That explains why during the first twenty years of the incorporation of the University there were no candidates for the M.A. Examination either in Arabic or in Persian. It was really in 1877 that for the first time two candidates passed the M.A. Examination in Arabic and one in Persian. After that from time to time candidates appeared at these examinations and took the degree. But still their number was small and most enthusiasts for Arabic and Persian studies continued to cling to old traditional institutions for their cultivation.

When after the framing of the New Regulations under the Indian Universities Act, 1904, the University proceeded to make its own arrangements for post-graduate study of different subjects, Arabic and Persian were not neglected. They in fact were prominently in the mind of Sir Asutosh Mookerjee, the Vice-Chancellor and maker of the Calcutta University as we know it today. In the Convocation address which he delivered in 1909 he deplored the lack of proper facilities for the acquisition of learning in Arabic and Persian according to modern and scientific methods. And in 1913 he took the first steps in the organisation of the Department of Arabic and Persian in the University, which attained its full fruition only some years after his death. In that year teaching arrangements were made for M.A. students in Arabic and Persian in the University and three distinguished men were appointed as Lecturers for the purpose. It will not be going out of the way to refer to the three men who were so appointed. They were (1) Shamsul-Ulama Mahmood Gilani (2) Mr. Zuhhadur Rahim Zahid Suhrawardy and (3) Aga Muhammad Kazim Shirazi. Mr. Suhrawardy rose high later in the judicial service, being a Judge of the Calcutta Small Causes Court and later of the High Court of Fort William.

In 1917 when the Council of Post-Graduate Teaching in Arts was set up by way of controlling and supervising the different De-

partments concerned with the study of, and research in, Arts and Letters, and Higher Boards of Studies were constituted for each subject, Arabic and Persian were also accommodated in a separate Department and placed under a Board of their own. Teaching staff was also strengthened by the addition of two more Lecturers whose work was again supplemented to some extent by the lectures of Dr. Taraporewala who had been appointed Professor of Comparative Philology. Sir Asutosh Mookerjee was not, however, quite satisfied with the arrangement he had succeeded in making. The late Mr. S. Khuda Buksh has left it on record that he aimed at making the Calcutta University a great centre of Islamic studies conducted on scientific lines. To this end " he hoped to gather here not only Indian scholars of note, but also European scholars of renown." But death claimed him, and the work left unfinished by him had to be taken over by others.

During the next few years other Departments of Post-Graduate Studies felt the blighting effect of financial stringency. But the Department of Arabic and Persian was allowed to grow and expand. In 1926 one additional whole-time Lecturership and two part-time Lecturerships were created and appointments to them were made. The Senate also created for the first time a Professorship of Arabic and Persian to be named after Sir Asutosh but appointment to the Professorship was made for the first time in 1929 in the person of Dr. M. Z. Siddiqi, M.A., B.L., Ph.D. (Cantab.) who continues to lead the Department to-day. At present in addition to the Professor there are 9 Lecturers, six being whole-time servants of the University and three serving in a part-time capacity. The principles followed in selecting the staff were to combine in the Department traditional learning with modern methods and outlook. Among those who served the University in the advancement of Arabic and Persian learning were such distinguished names as those of the late Dr. Sir Abdulla Suhrawardy who was among the first batch of scholars to receive the degree of Doctor of Philosophy in this University on an able thesis on Islamic Jurisprudence and Viscount Santa Clara, a scholar, as the name would imply, of Spanish origin, who after passing through the full gamut of western education took to Arabic learning and mastered it fully in contact with Arabic scholars of renown in Egypt.

For M.A. Examination in Arabic four papers are compulsory and the remaining four papers may be studied in any one of the six groups prescribed for the purpose. Among the compulsory subjects are (*i*) History of Islam in Arabia, Persia and Mediterranean countries. (*ii*) History of Arabic language. (*iii*) Arabic Grammar, Rhetoric, etc., (*iv*) Modern Arabic and Essay. Group A is concerned

with the study of Literature, Group B with History, Group C with the Quran and the Tafsir, Group D with Hadith, Group E with Ilmu'l Kalam and Philosophy and Group F with Philology and Grammar. In Persian also the first four papers are compulsory and include (i) General History of Pre-Islamic and Islamic Persia and General History of Islamic India, (ii) History of Persian Literature, (iii) Philology and Rhetoric, etc. and (iv) Modern Persian and Essay. The remaining four papers may be studied in any of the five groups—(i) Literature, (ii) Historical Literature (Persian), (iii) Historical Literature (Indian), (iv) Philosophy and Mysticism, and (v) Philology. In view of the political changes in the country and the necessity of establishing better cultural relations between India and the Middle East, the Department is contemplating an increase in importance of modern Arabic and modern Persian in the syllabus.

Teachers in the Department have in addition to their lecture work in the post-graduate classes undertaken research work in different branches of Arabic and Persian culture. Specimens of their publications are inserted in the appendix. It should, however, be emphasised here that the reputation of the Department has always been high and its members have been sought after by cultural bodies throughout India for their assistance and co-operation. Professor Siddiqi, the head of the Department, was invited in 1938 by the Dariatu'l-Marif of Hyderabad to deliver a lecture on Islamic traditions. The Arabic text of the lecture was published by the said Daria. He was also invited in the following year to speak at the Jamia Milliya of Delhi on the cultural activities of Muslim women. He presided over the Arabic-Persian Section of the All-India Oriental Conference held at Hyderabad and Nagpur in 1941 and 1946 respectively. Dr. Muhammad Ishaq, a whole-time Lecturer in the Department, has been Secretary to the Indo-Iranian Society whose object is to foster cultural relations between India and Iran and which to that end publishes a journal called Indo-Iranica.

DEPARTMENT OF PURE MATHEMATICS *

Master's degree in Mathematics was instituted in 1865, eight years after the incorporation of the University. No differentiation was then observed between Pure and Mixed Mathematics. The syllabus included both. This arrangement continued till 1896 in which year two Groups were created in post-graduate Mathemati-

* Department of Pure Mathematics is under the Council of Post-Graduate Teaching in Arts.

cal studies. Group A included Pure Mathematics as the principal subject and Mixed Mathematics as a subsidiary subject. In Group B the arrangement was reversed. This half-way house continued till 1908. The New Regulations framed under the Indian Universities Act, 1904, provided for Pure and Mixed Mathematics being more logically separated. Each was made an independent subject for the M.A. examination.

It should be borne in mind in this connection that Sir Asutosh Mookerjee who played the leading part in the framing of these Regulations had maintained that keen interest in Mathematics which he had developed as a student of the subject in his younger days. Himself a reputed scholar in the subject with a number of research papers to his credit, he felt the urgency of making Mathematical studies more up to date. Accordingly, as it has been stated above, Pure and Mixed Mathematics were separated under the New Regulations. He also knew from personal experience that arrangements which existed for teaching Higher Mathematics were too rudimentary to be satisfactory. It was necessary that the University itself should undertake responsibility for teaching and research in both branches of Mathematics. It is of course true that even under the handicap of inadequate teaching facilities in Higher Mathematics there were some scholars who successfully made efforts to widen the bounds of knowledge in the subject and made researches which elicited appreciation and praise from competent scholars abroad. Among these distinguished *alumni* were Sir Asutosh himself and two other scholars who subsequently became associated with the Department of Pure Mathematics of the University, *e.g.*, Professor Ganes Prasad and Professor Syamadas Mookerji. But they were exceptional cases. It was clear that without the University making its own arrangements for higher teaching and research in Mathematics, it would be unwise to expect even students of high calibre to make their contributions to the development of the science.

It was, however, not till 1912 that the University could make any arrangements of its own for post-graduate studies in Pure Mathematics. In that year four distinguished teachers were appointed. One of them is fortunately still on the University staff and is acting at present as the head of the Department—Dr. Haridas Bagchi, M.A., Ph.D. In the same year a distinguished Cambridge Mathematician, Dr. Andrew Russell Forsyth, who had been for many years Sadlerian Professor of Pure Mathematics in his University, was invited by the University to deliver a course of Readership lectures on "Functions of two Complex Variables." In the winter of 1912-13 he delivered altogether sixteen lectures

which captured the imagination of the students of Mathematics who attended them and instilled into their mind a spirit of research and original investigation. Meanwhile the Professorship of Higher Mathemathics which was named after the Governor-General and Chancellor, Lord Hardinge, was created and on the advice of Dr. Forsyth a fellow Cambridge scholar of his, Dr. W. H. Young, F.R.S., was appointed to this Chair in 1913.

Dr. Young, the first Hardinge Professor of Higher Mathematics, remained at his post till 1916 in which year he had to leave India for reasons of health. During the short period he occupied the Chair he succeeded in training a number of research scholars in Pure Mathematics, two of whom were added to the Department by way of further widening the opportunities of teaching and research. Dr. Young's place as Hardinge Professor was on his departure taken by Dr. C. E. Cullis who had excellent contributions both in Pure and Applied Mathematics to his credit and who worthily carried on the traditions set by the first Hardinge Professor. It was in his time that post-graduate studies were re-organised (1917), and two Councils of Post-Graduate Teaching were inaugurated. The Department of Pure Mathematics was placed under the control of the Council of Post-Graduate Teaching in Arts while the Department of Applied Mathematics came under the control of the Science Council. In the changed order of things the Department was further expanded. Dr. Cullis remained Hardinge Professor till 1923 in which year he was succeeded to the Professorship by Dr. Ganes Prasad, M.A., D.Sc. Professor Prasad had before this been Professor of Applied Mathematics. As Hardinge Professor of Higher Mathematics he led the Department of Pure Mathematics for more than a decade. In fact he was at its head till his untimely and much lamented death in 1935. On his demise the Department was headed temporarily by Dr. H. D. Bagchi until Dr. F. W. Levi who had done distinguished work at Leipzig in Higher Algebra, Topology, Theory of Groups and Affine and Finite Geometries was appointed Hardinge Professor in 1936. He was associated with the Department till September, 1947 and during this period he succeeded in inspiring a number of advanced students with a spirit of research particularly in those branches in which he had himself specialised. The Hardinge Professorship is at present vacant and Dr. Bagchi is again officiating as head of the Department. He is assisted in the conduct of teaching and research by six other whole-time Lecturers, one part-time Professor and several part-time Lecturers and Tutors.

Reading Room. University Central Library, Asutosh Building

UNIVERSITY LIBRARY

The University maintains a Central Library, a number of sectional and departmental libraries including the Library of the University Law College which has a rich collection of its own on legal subjects, and a number of manuscript collections. So long as the University was a mere affiliating and examining body, it had no library worth the name. In fact the nucleus of the University Library was not formed until 1869. In that year Mr. Jaykissen Mukherjee of Uttarpara made a donation of Rs. 5,000 for setting up a small library "which might be a useful acquisition to the University." This gift and a small collection of books bequeathed about that time to the University by the will of Esan Chandra Ghose became the foundation of its Library which grew from decade to decade no doubt but which all the same was a very small and unpretentious affair in the beginning of this century. All the books of this Library were accommodated in one small side room of the Senate House.

The Indian Universities Act of 1904 changed the status of the University as a centre of the advancement of learning and empowered it specifically to maintain libraries, museums and art galleries. We have seen already that this Act was the basis of the great transformation which took place in the functions of the University during the next fifteen years. Along with the undertaking of responsibilities for higher teaching and research by the University, attention had also to be paid to the development of the Library. The first notable event in this regard was the purchase of the entire library which Professor R. Pischel of Berlin had accumulated as a private collection. It contained practically all books which had been published during the previous forty years in the fields of Sanskritic Studies, Philosophy and Comparative Philology. It was an acquisition of which the University was naturally proud. The second event was the erection of a noble building in 1912. The Maharaja of Darbhanga had made an excellent contribution towards the expenses incurred in this regard and the building was in consequence named after him, and is to this day called the Darbhanga Building. It became the home of the expanding University Library and remained so for a quarter of a century. It was only after the fourth storey of the Asutosh Building was completed that the University Library was shifted there. But the Law College Library continues in its old home of the Darbhanga Building.

The block of the Asutosh Building which now accommodates the Central Library includes not only the stack room and the

Library Offices but the main Reading Hall and the reading room for research workers. The Reading Hall is one of the largest of its kind in India and has accommodation for three hundred readers at a time. One of the important features of this Hall is the fresco-panels which decorate its three walls. These paintings, which are the work of an eminent artist, Mr. Dhirendrakrishna Dev Barma, illustrate a panorama of Indian history and civilisation from Mohenjo-Daro to modern times. The block which was sufficiently commodious for Library purposes twelve years ago is, however, proving insufficient for the ever-expanding collections of the Library to-day. Already the Commercial Museum had to be shifted from near the Library block for the purpose of expanding the latter and in the future the Library must encroach on other parts of the building or remain cramped and unprogressive.

In fact the progress of the Library since the Pischel collection was purchased has been phenomenal. The University spends annually Rs. 36,000 and the number of additions in books has been annually in average four thousand five hundred. Of late of course the prices of books have gone up considerably and the Library is feeling handicapped on that score. Gifts of private collections have also reinforced the stock from time to time and relieved pressure on University funds. Some of these collections may appropriately be referred to here. The excellent collection of books of Professor S. C. Ray was handed over to the University to reinforce the University's own collection in Economics and Politics. The private library of the late Professor J. N. Dasgupta was given to the University by his son, Dr. A. P. Dasgupta. The valuable collection of books on Physics, Mathematics and French and German literatures of Dr. S. C. Bagchi, who had been Principal of the University Law College, was similarly offered to and accepted by the University with thanks. Lastly we may refer to the beautiful collection of books on literature, belonging to the late Professor P. C. Ghose, which was handed over to the University.

Originally when the University was only an examining body, its Library was meant to be utilised by the Resident Fellows and Registered Graduates. The rules had to be liberalised with the undertaking of teaching and research responsibilities by the University. The Library could now be used not only by the Resident Fellows and Registered Graduates but by all University teachers and scholars. In 1917, when post-graduate studies were centralised in the University, a Lending Section had to be opened for students and for the next eighteen years the University Library remained divided into two parts—the general Reference Library and the Lending Library for students. But during the Vice-Chancellor-

ship of Dr. Syamaprasad Mookerjee the two were amalgamated into the Central Library which was shifted to its present habitat. The Library may claim to-day to be the second biggest in India and total collection of books excluding that in the Law College Library amounts to 1,91,335.

The Central Library itself contains of course many manuscripts in historical and other subjects. But special reference should be made also to manuscript collections which have been separately accumulated and managed in several Departments. There is for instance the excellent collection of manuscripts of old Bengali works. There is a separate section of the Department of Modern Languages to deal with this collection. Similarly there are Tibetan, Chinese and Sanskrit collections. They are an adjunct of the Department of Sanskrit.

Since 1937 the Librarian has been a whole-time officer of the University and has been required to have technical Library training in addition to high liberal education. Dr. N. R. Ray who was trained in Library management in the University of London was appointed Librarian in that year and on his subsequent appointment to the Bagiswari Professorship of Fine Arts Mr. B. N. Banerjea, M.Sc. who had the same training in London succeeded him. The Librarian is assisted by a trained Deputy Librarian, an Assistant Librarian, a Superintendent of the Reading room and a requisite number of other assistants. It should be mentioned in this connection that the University has opened a diploma course in Librarianship which is conducted mainly through the agency of the Library staff.

ASUTOSH MUSEUM

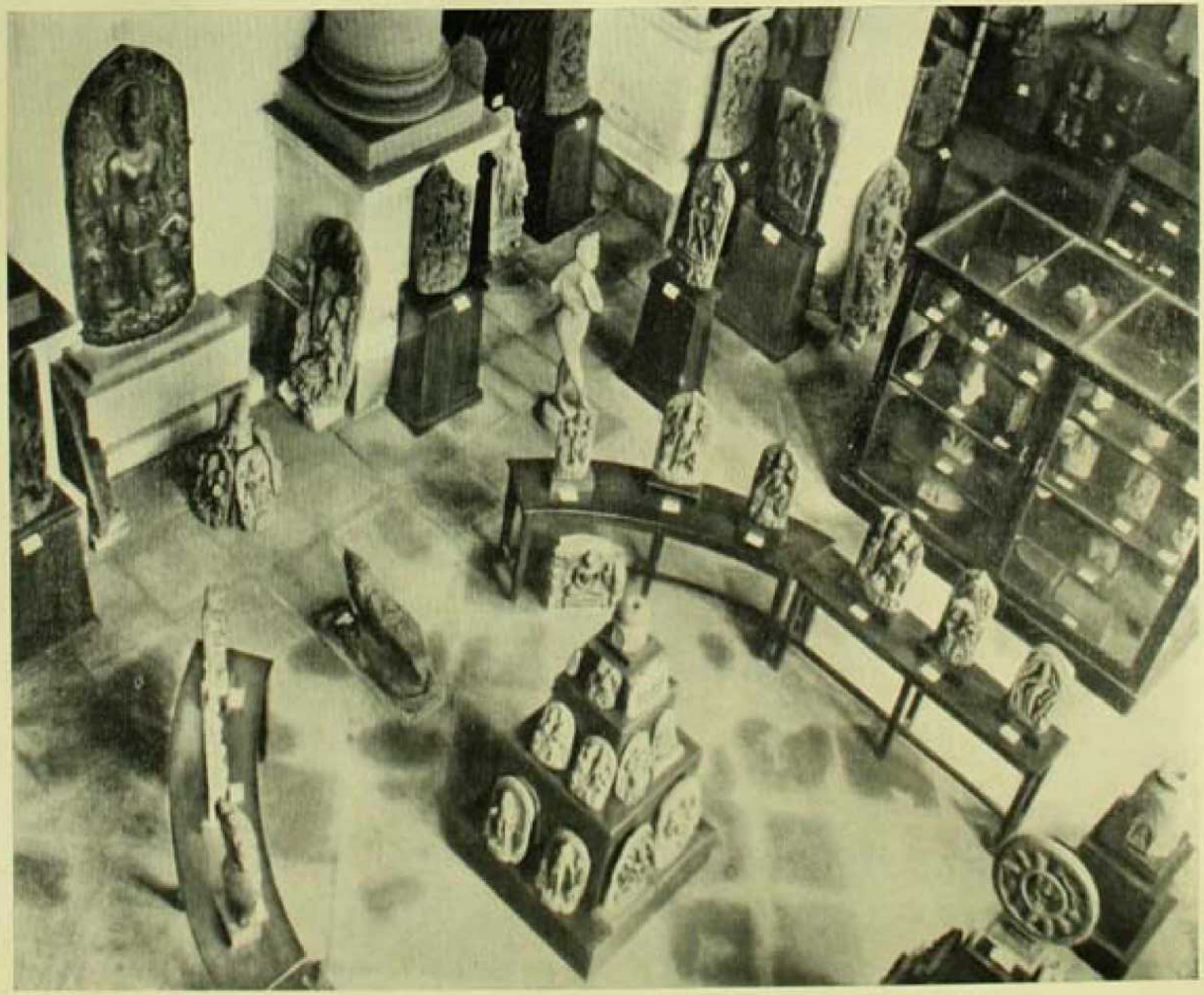
An important and fascinating feature of the Calcutta University to-day is the Asutosh Museum which is located in the Western Hall of the Senate House. Established in 1937 it has become at the present time an important adjunct of art and archaeological studies and research in the University. One of the subjects on which the founder of post-graduate studies in Calcutta laid special stress was Ancient Indian History and Culture. It should be recalled that Sir Asutosh Mookerjee wanted this subject to be studied in its entirety. It was not to be merely political history or history of external relations but also history of social and political institutions, history of culture and literature and history of arts and architecture. On

this account he was not satisfied with the establishment of the Carmichael chair of Ancient Indian History and Culture but utilised the handsome Khaira donation in setting up the Bagiswari Professorship of Fine Arts in 1922. So special emphasis was henceforward placed on Art and Archaeology not only in the syllabus of M.A. studies in Ancient Indian History and Culture but in the conduct of researches by post-graduate teachers and scholars. An intimate relationship was on this account established between the University and the Department of Archaeology of the Government of India. Officers of the Department were chosen for lecture work in the University classes and University teachers and research scholars were associated with the Department of Archaeology in excavation and other works.

But there was one void to be filled in this steady pursuit of study and research in art and archaeology by the University. It lacked a Museum of its own. It was true that the Indian Museum was located at Calcutta and provided excellent opportunities for study to our students and teachers. But the Museum was an all-India one and it could not be expected to specialise on the development of art as it had taken place in this province. In any event a Museum was a desideratum in the University and the ambition was fulfilled in 1937, during the Vice-Chancellorship of Dr. Syamaprasad Mookerjee. Mr. Devaprasad Ghosh, M.A., was appointed Curator. He had already done some valuable work on Indian Art as Premchand Roychand Student and under his leadership the Museum has during the short period of ten years grown into an object of attraction in Calcutta.

The Museum started with only fifty exhibits. To-day the number has reached 8,000 including stone and terracotta objects, metal, ivory and wood objects, coins and textiles, manuscripts and paintings, objects of folk art and lastly exhibits brought out by excavation in several ancient sites. These objects illustrate different phases of Indian Art as developed in Eastern India and particularly they illustrate the growth of art in Bengal from the first century A.D. to modern times. This rapid growth of the Museum is largely due to the acquisition of several private collections either through gift or through purchase. The officers of the Museum also formulated a scheme of collection in the different districts of Bengal and by acting up to it with the co-operation of students and friends have succeeded in enriching the Museum steadily since its inception. The Curator himself succeeded in course of his many tours in Bengal and Orissa in securing unique objects of plastic and graphic arts.

The Museum, apart from being a Museum, has undertaken several responsibilities for the development of art and art-sense-



Asutosh Museum of Indian Art. General View of the Sculpture Gallery

One such responsibility has been undertaken for excavation of certain historical sites. It should be stated in this connection that in 1933 the Ancient Monuments Preservation Act of 1904 was amended so as to make possible for a non-government body to undertake excavation work. The Calcutta University is the only such body which has assumed this responsibility and on its behalf the Asutosh Museum has already done excavation work at Bangarh and other places with excellent results. These excavations have thrown fresh light on some dark periods of the history of Bengal. A memoir on work done at Bangarh and the materials obtained there has been published by Mr. K. G. Goswami, M.A., who was in charge of the excavation. Some preliminary work has also been done in the Chandidas Mound in Nanoor in the district of Birbhum and in Sisupalgarh in Orissa. For the latter the Curator submitted a report on which the Archaeological Department decided to act. The Museum has also undertaken during the last two years a survey of rural arts and crafts of Bengal and Orissa.

For the stimulation of Art education, the Museum has taken up two kinds of work. First, guide lecturers with adequate qualifications have been appointed to acquaint the visitors from schools and colleges with different features of Art development as illustrated by the exhibits of the Museum. Secondly, since 1941 the Museum has held short summer courses for the training of teachers for art appreciation in schools for boys and girls. The Museum has also opened a laboratory for developing the technique of cleaning and preserving antiquities. It may be mentioned in this connection that indigenous methods which have been handed down by tradition are being systematised, developed and used in the Museum with excellent results. There is a seminar attached to the Museum. It contains a rich collection of books on art and archaeology and has been particularly useful to the promotion of research on these subjects. To this end a research studentship has also been maintained for sometime past.

At the Exhibition of Indian Art, London, 1947-48, sponsored by the Royal Academy one of the paintings exhibited by this Museum was acclaimed by the British connoisseurs, perhaps, the best exhibit in this most representative show of Indian art yet held, consisting of 1500 rarest objects. The importance of this museum is further proved by the fact that the Archaeological Survey of Afghanistan and the Ecole Francaise D'Extreme Orient, Hanoi, Indo-China are desirous of exchanging their objects with this Museum. The British Museum, London, the Smithsonian Institute, Washington and the UNESCO, Paris have also already established contact with this infant institution barely 10 years old.

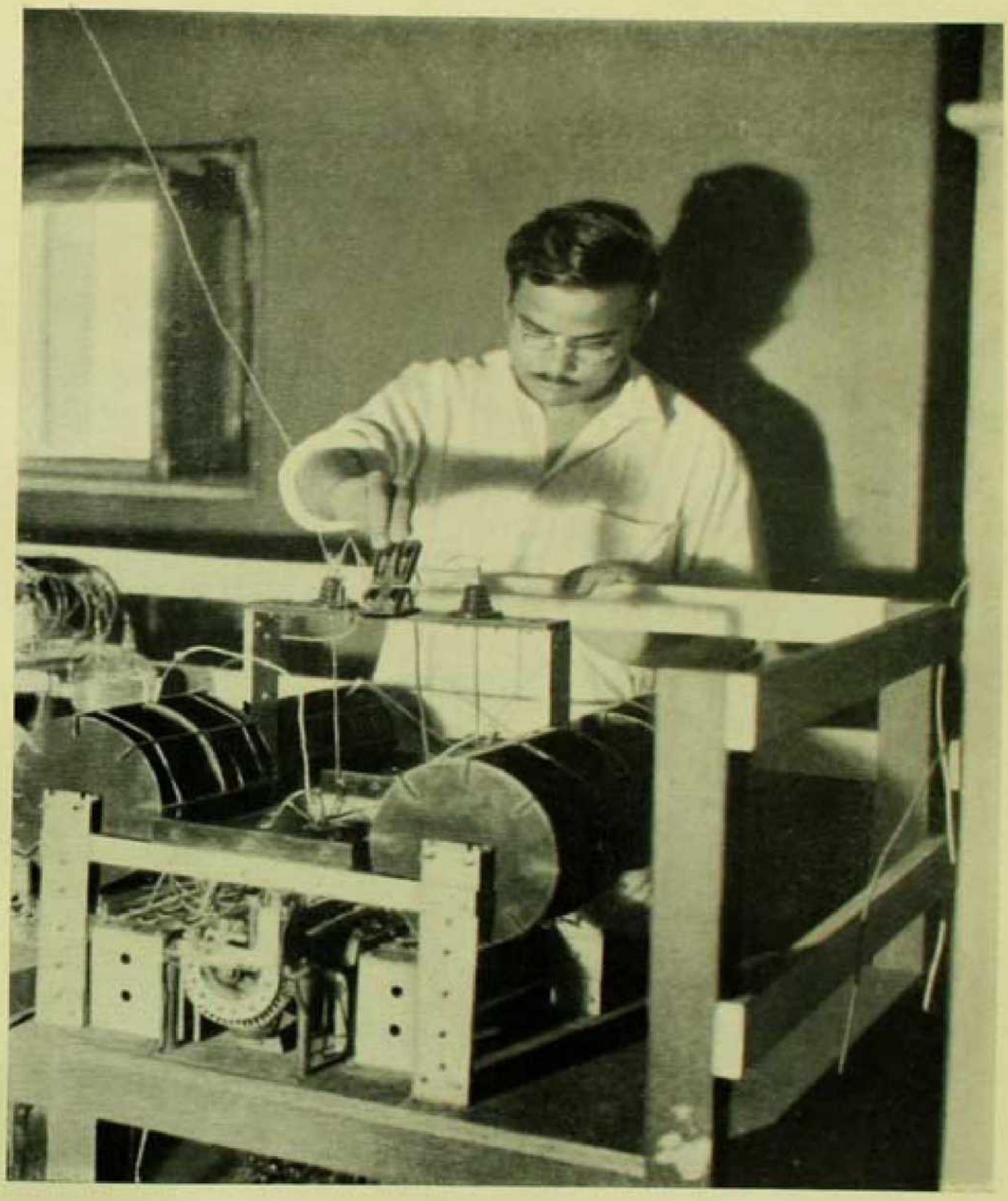
ARRANGEMENT FOR TEACHING MODERN FOREIGN LANGUAGES

Both for oriental and European learning, it is essential for scholars to get acquainted with several languages which in the ordinary course of education they are not required to learn. Soon after the centralisation of post-graduate studies under the auspices of the University it was decided accordingly to open classes, which would be held in suitable hours, in some of these languages so that scholars engaged in researches and persons desiring to learn certain languages for other purposes might profit by them. In the academic session of 1917-18 classes were for the first time opened in Tibetan, Chinese, German and Dutch, in 1918-19 in French and Japanese, in 1924-25 in Portuguese, in 1929-30 in Italian, in 1939-40 in Polish. We regret very much that teaching arrangements for some of these languages could not be maintained for lack of suitable teachers during recent years. Instructors in Japanese and Italian, *e.g.*, left on the eve of their countries being involved in war. But classes in Tibetan, Chinese, French and German have been uniformly held and properly utilised. It should also be mentioned in this connection that in Post-Graduate Arabic and Persian Studies there are compulsory courses in modern Arabic and modern Persian literature, and consequently it is not difficult for any scholar who wants to pick up acquaintance with these modern languages to get facilities on that score in the University. It is again the desire of the University to build up a more fully developed school of languages so that both University scholars and outsiders may have opportunity of taking short as well as elaborate courses in the languages they regard as useful for their purposes.

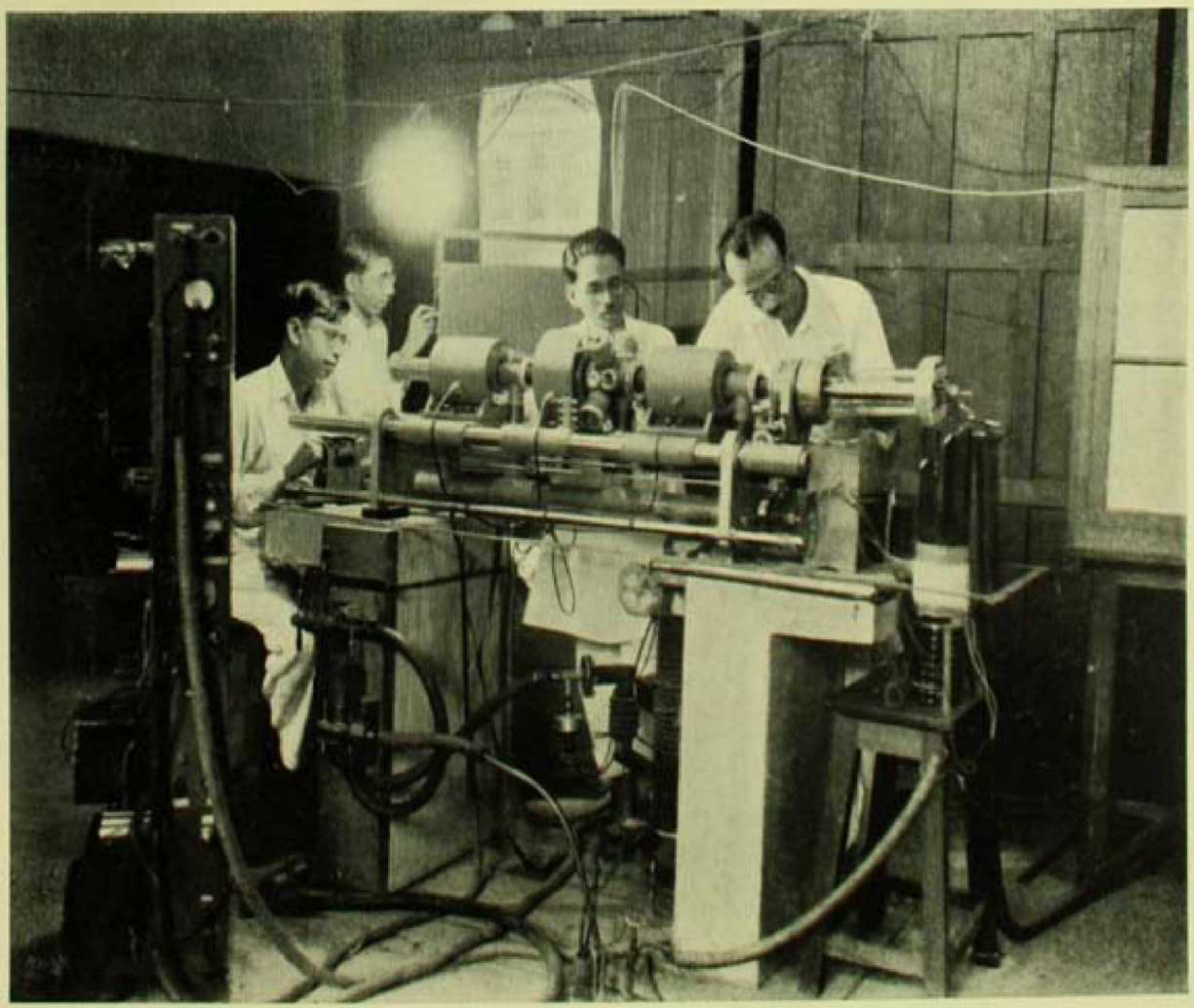
UNDER-GRADUATE CLASSES

As a rule the University has assumed responsibility only for post-graduate teaching and research. Under-Graduate work is done in the constituent colleges. But at the time the University became a teaching institution, it was found that there were subjects for the teaching of which there were no arrangements in the colleges. The University, however, thought that such subjects should not be neglected. Accordingly it undertook responsibility for teaching

them through instructors appointed by itself. Later as suitable arrangements were made in some of the colleges to this end, the University gave up its own efforts in this connection. But to this day there are some subjects for which the University has maintained proper arrangements. Commerce, Anthropology, Botany, Geography, Physiology, Psychology, Zoology and Linguistics are the subjects for which there is arrangement for teaching and laboratory work in the University. In 1935 the Teachers Training Department was opened under the auspices of the Council of Post-Graduate Teaching in Arts. The object was to train teachers for the high schools. But this training has been confined so far to the first degree course (B.T). It has been decided to raise the Department to post-graduate status in the near future.



Ionosphere Laboratory. University Science College



Electron Microscope. University College of Science and Technology

APPENDIX I

(A Select List of Research Publications by members of the Department of ENGLISH)

1. *Banerji, H. K.*—Book : Henry Fielding.

2. *Banerji, J. G.*—Papers : The Red Oleander (*Cal. Rev.*); Philosophy of Shelley (*Cal. Rev.*)

3. *Banerji, Dr. S. K.*—Book : Critical Theories and Poetic Practice in "The Lyrical Ballads." (C.U.)

4. *Bhattacharji, Dr. M. M.*, Gooroodass Banerjee Professor of English—Books : Studies in Spenser (C.U.); "Courtesy" in Shakespeare (C.U.)

   Papers : Evolution of Hamlet's Personality; Feudal Manners in Shakespeare; Italy in Elizabethan Pamphlets; Hamlet and Courtesy; Basic English and its Possibilities; Pico della Mirandola; Three Poets; Rudyard Kipling; G. W. Russell (A.E.); Theories of Love; The Modern Gentleman; Personality of a famous Bengali; Rabindra Nath Tagore.

5. *Chakravarti, Dr. Amiya*—Book : Hardy's "Dynasts"; Modern English Poetry (Oxford Univ. Press).

   Paper : Movements in Contemporary English Poetry.

6. *Chatterji, N. N.*—Paper : Keats and the Pre-Raphaelites.

7. *Das, Dr. S. K.*—Book : Cyneuwulf and Cynewulf Canon (C.U.).

   Paper : A Note on Crist L. 20 (Modern Language Notes).

8. *Dasgupta, Rabindra Kumar*—Books : Aristophanes on War and other Essays Marxist Criticism of Shakespeare.

9. *Dutt, Roby*—Book : Translations from Sanskrit Poetry.

10. *Ghosh, Dr. J. C.*—Books : Annals of English Literature (Oxford Univ. Press); Edition of Otway's Plays (Oxford Univ. Press); 'Blind Spots.'

11. *Ghosh, Manmohan*—Book : Songs of Love and Death.

12. *Ghosh, Prabodhchandra*—Papers : Modern Drama; Poetry of D. H. Lawrence; Dugard : A Study; Tagore as a Critic of Shakespeare (C.U.)

13. *Ghosh, Praphullachandra*—Book : Ancient India as known to Ancient and Medieval Europe.

Papers : On " Ingenuous Shame " in Gray's Elegy; On a Passage in *Comus*.

14. *Guha, P. K.*—Book : Tragic Relief.

Papers : On two Problems in Shakespeare : *Hamlet* and *Troilus* and *Cressida*; The Inner Havoc in Shakespeare's Tragic Hero (C.R.)

15. *Guha, R. K.*—Book : Socrates (in Bengali), 2 Vols.

16. *House, A. H.*—Book : Edition of Note-Books of Hopkins.

Papers : The World of Dickens; Poetry of W. B. Yeats.

17. *Kabir, Humayun*—Book : Poetry, Monads and Society.

18. *Maitra, Dr. H. C.*—Paper : Work and Wages.

19. *Mookerjee, Dr. H. C.*—Pamphlets : An Answer to the Baconians; Scott and the Supernatural; Nature in the Poetry of Milton.

20. *Sen, Amiyakumar*—Book : Studies in Shelley (C.U.).

Paper : Studies in Modern Literary Criticism (C.R.)

21. *Sen, Priyaranjan*—Papers : Romantic Criticism of Shakespeare's Plays; Vanbrugh's *Relapse* and Sheridan's *Imitation*; Ben Jonson and Milton.

22. *Sen, Dr. Srichandra*—Book : Daniel Defoe : His Mind and Art.

Papers : Introduction to Modern English Fiction (C.R.); Love and Romances in Recent English Fiction (C.R.); Psychological Studies in Recent English Fiction (C.R.); Religious and Philosophcal Ideas in Recent English Fiction (C.R.); The Linguistic Influence of the Authorised Version (J.D.L.); The Iliad of Central Asia; Utopias and the Vision of the Future World (C.R.); Marriage and Morals (C.R.)

23. *Sen, Taraknath*—Papers : Hamlet's Treatment of Ophelia in the Nunnery Scene; Keat's Idea of Beauty; Charles Lamb : Hundred Years; Bernard Shaw.

24. *Zuberi, Dr. I. H.*—Book : Theology of John Donne.

25. *Lahiri, K. C.*—Paper : Humour in English Literature (C.R.)

APPENDIX II

(A Select List of Research Publications by members of the Department of HISTORY)

Professor P. N. Banerjee, M.A., B.L., P.R.S., Barrister-at-Law, Member of the Department of History, since 1917, *Vice-Chancellor* since 1946.—Book : International Law and Custom in Ancient India (C.U.).

S. N. Sen, M.A., B.Litt., Ph.D., Asutosh Professor of Medieval and Modern Indian History, 1931-39, Director of Archives, Government of India since 1939.—Books : Administrative System of the Peshawar (C.U.); Military Administration of the Mahrattas (The Book Co., Ld.); Sivaji Chattrapati (C.U.); Foreign Biographies of Sivaji (C.U.).

S. Khuda Bakhsh, M.A., B.C.L. (Oxon.), Barrister-at-Law—Books : History of Islamic People; History of Islamic Thought; Studies—Indian and Islamic; Essays—Indian and Islamic.

Indubhushan Banerjee, M.A., Ph.D., Asutosh Professor of Indian History and Head of the Department.—Books : Evolution of the Khalsa, Vol. I, 1936; The Supreme Court in Conflict, 1940; The Origin and Rise of the Sikhs; A Translation with an Introduction and Notes of the Hukikut; Evolution of the Khalsa, Vol. II, 1947.

Papers : The Sikh Masands (*Calcutta Review*, 1925); The Kashmir Rebellion and the Trial of Raja Lal Singh (*Ind. His. Congress*, 1939); The case of Swarup Chand—an incident in the quarrel between the Supreme Court and the Supreme Council (*Ind. His. Congress*, 1944); Nao Nihal Singh and the Nepalese Mission to Lahore (*Ind. His. Records Commission*, 1945); The Calcutta Review and the First Sikh War (*Cal. Rev.*), 1944.

A. P. Dasgupta, M.A., Ph.D. (London) (Member of the Department till 1934, now Controller of Examinations)—Books : The Central Authority in British India; Studies in Ido-British History.

Sri Tripurari Chakrabarti, M.A.—Papers : Parliamentary Privilege : Its Application to Indian Legislatures (*Cal. Rev.*, February, 1925); The Problem of India's Constitutional Status (*Cal. Rev.* Aug., 1935); Publication of Debates of the Indian Legislative Assembly : The Question of Privilege (*Cal. Rev.*, April, 1936); New Light on the Minto-Morley Reforms (*Cal. Rev.*, Dec., 1939); The Reserve Powers of the Governor and Responsible Government in Bengal (*Cal. Rev.*, Jan., 1943); Double Government in Bengal (*Cal. Rev.*, Feb., 1943); The Calcutta Review and the Problem of Indian Constitutional Reform in the 19th Century (Centenary Number, *Cal. Rev.*, May, 1944);

The Evolution of Political Franchise in British India (*Cal. Rev.*, Jan. 1947); Lessons from the Constituent Assemblies of the Dominions (No. 1 of Vol. I of the *Indian Law Review*, 1947); The Singapore Naval Base: A Study of British Diplomacy in the Far East (*Cal. Rev.*, June, 1924); The Chinese Tangle: Its Solution (*Cal. Rev.*, Jan., 1925); Portents in the Pacific (*Cal. Rev.*, May, June and July, 1925).

Narendrakrishna Sinha, M.A., Ph.D.—Books: Ranjit Singh, First Edition, 1933, Second Edition, 1945; Rise of the Sikh Power, First Editions, 1936, Second Edition, 1945; Haidar Ali, First Edition, 1941, Second Edition to be published soon; Editing a Volume of Documents for National Archives of India.

Papers. The Durrani Menace and the British N-W Frontier Problem in the Eighteenth Century (*Indian Historical Quarterly*, Vol. X, No. 4, 1934); Mir Qasim as an Exile from Bengal (*Cal. Rev.*, May, 1935); State of Education in Bengal in the First Half of the Nineteenth Century (*Cal. Rev.*, May, 1943); Siraj-ud-Daula (*Cal. Rev.*, Aug., 1943); Some Information about Omi Chand from the Calcutta High Court Records (*Modern Review*, Nov., 1947).

Ramaprasad Dasgupta, M.A.—Book: Crime and Punishment in Ancient India.
Paper: Development of the Hindu Polity (*Ind. His. Congress*, 1939).

Nareshchandra Roy, M.A., Ph.D.—Books: A Monograph on the Separation of Executive and Judicial Powers in British India, 1931 (M. C. Sarkar and Sons, Calcutta); Indian Civil Service, 1935 (The Book Co., Ltd., Calcutta); Rural Self-Government in Bengal, 1936 (C.U.); The Federal System of the U.S.A.: A Study in Federal-State Relations, 1940 (C.U.); A Critical Study of Some Aspects of Public Administration in Bengal, 1945 (C.U.); Towards Framing the Constitution of India, 1947 (B. G. Printers, Ltd., Calcutta).

Papers: Side-Lights in the Calcutta Municipal Elections (*Cal. Rev.*, 1936); Away from Nationalism (*Cal. Rev.*, 1936); India's Connection with the League of Nations (*Cal. Rev.*, 1937); Calcutta Corporation and Permanent Services (*Cal. Rev.*, 1937); The Borough Elections in England (*Calcutta Review*, 1939); Indian Civil Service and Provincial Autonomy (Paper read at Lahore Session of Indian Political Science Conference, *Calcutta Review*, 1940); Working of the Public Service Commission in Bengal (Paper submitted to Mysore Session of Indian Political Science Conference, Journal of Indian Political Science Association, 1941); Compact Theory of Canadian Constitution (Journal of Indian Political Science Association, 1941); India and the U.S.A. (*Cal. Rev.*, 1942); Anglo-Soviet

Alliance (*Cal. Rev.*, 1942); The League of Nations and the Future World Order (*Cal. Rev.*, 1942); English Administrative Law (*Cal. Rev.*, 1943).

Pratulchandra Gupta, M.A., Ph.D. (Lond.)—Books : Baji Rao II and the East India Company, 1796-1818 (1939); The Last Peshwa and the English Commissioners, 1818-1851 (1944); Shah Alam II and his Court (1947); and editing a volume of Documents to be published by the National Archives of India, New Delhi.

Papers : An anonymous Manuscript in the India Office (Sardesai Commemoration Volume, 1938); The Administration of Poona under Baji Rao II (*Ind. His. Records Commission*, 1939); Sir John Low's Services at Bithur (Transactons of the *Ind. His. Congress*, 1941); Notes on Traimbakji Danglia (*Ind. His. Records Commission*, 1942); The Commissioners at Bithur (*Indian Culture*, 1943); Anthony Louis Polier's Career in India (*Ind. His. Congress*, 1945); A Fragment from Orme Collection in the India Office (Indian Historical Records Commission, 1948); Lord Hastings' "Summary of Administration" with Low's Comments (*Indian Historical Quarterly*, 1948).

Atindranath Bose, M.A., Ph.D.—Books : Social and Rural Economy of Northern India (Cir. 600 B.C.—200 A.D., Vols. I and II) and Crossroads of Science and Philosophy (1947).

Anilchandra Banerjee, M.A., Ph.D.—Books : The Eastern Frontier of British India; Annexation of Burma; Rajput Studies; Peshwa Madhav Rao, I. Edited following :—Indian Constitutional Documents (3 Volumes); The Making of the Indian Constitution; The Constituent Assembly of India.

Papers : Kingship and Nobility in the 13th Century (*Indian His. Quarterly*); Kingship and Nobility in the 14th Century (*Ind. His. Quarterly*); The Islamic Kingship in India (*Ind. His. Quarterly*); British Policy towards Afghan War of Succession (*Ind. His. Quarterly*); Succession of Firuz Shah (*Ind. Culture*); Kingship and Nobility in the 15th Century (*Ind. Culture*); The Wizarat under the Slave Kings (*Ind. Culture*); Some important Officers of the Sultans of Delhi (*Ind. Culture*); Provincial Government under the Sultanate of Delhi (*Ind. Culture*); Procedure of Succession to the Sultanate of Delhi (*Jour. of Ind. His.*); Influence of Islamic Traditions on the Sultanate of Delhi (*Jour. of Ind. His.*); Origin of Sikh Militarism (*Jour. of Ind. His.*); Early Indo-Persian Literature and Amir Khusrau (*Cal. Rev.*); Provincial Government under the Slave Sultans (*Cal. Rev.*); Sikhism and the Medieval Reformation (*Jour. of Bihar and Orissa Research Soc.*); Some Aspects of the Career of Guru Teg Bahadur (*Jour. of Bihar and Orissa Research*

Soc.); Dewani and Criminal Jurisdiction (*Ind. His. Records Commission*); A Contemporary Account of the First Anglo-Maratha War (*Ind. His. Records Commission* and Neutralisation of Afghanistan (*Ind. His. Congress*).

Sanaullah, Ph.D.—Book : Decline and Fall of the Seljuks.

G. N. Banerjee, M.A., Ph.D.—Books : Hellinism in Ancient India : World around Ancient India.

R. C. Majumdar, M.A., Ph.D.—Books : Corporate Life in Ancient India ; History of the Gurjara-Pratiharas.

N. C. Banerji, M.A., Ph.D.—Books : Kautilya ; Economic History of Ancient India.

J. N. Dasgupta, M.A. (Oxon)—Books : India in the 17th Century ; Bengal in the 16th Century.

S. Chatterjee, M.A., Ph.D.—Books (to be shortly pubilshed)—Studies in Ancient Geography of South India (Thesis for the P.R.S.) and The Sakas in India (Thesis for the Ph.D.).

S. P. Sen, B.A. (Lond.)—Book : History of the French in India—First Establishment and Struggle. (C.U.)

APPENDIX III

PHILOSOPHY

Prof. B. N. Seal—Books and Papers : New Essays in Criticism ; Vaisnavism and Christianity ; Race Origins—Opening Address at the International Congress of the Races ; Race, Culture, Habitat ; Positive Sciences of the Ancient Hindus ; Syllabus of Indian Philosophy : Quest Eternal.

Prof. S. Radhakrishnan—Books : Reign of Religion in Contemporary Philosophy ; Indian Philosophy, Vols. I and II ; The Hindu View of Life ; An Idealistic View of Life ; Eastern Religions and Western Thought ; Comparative Religion ; Lectures on Bhagavat Gita.

Prof. Hira Lal Haldar—Books : Hegelianism and Human Personality ; Essays on General Philosophy ; Neo-Hegelianism.

Prof. K. C. Bhattacharyya—Books : Studies in Vedantism ; The Subject as Freedom ; Lectures on Kant (ready for publication) and Lectures on Sankhya (ready for publication).

Prof. S. N. Dasgupta—Books : History of Indian Philosophy (Vols. I, II and III) ; Yoga Philosophy ; Indian Idealism ; Philosophical Essays ; Lectures on Religion (Stephanos Nirmalendu Ghosh Lectures).

Prof. S. K Maitra, M.A., Ph.D., George V Professor of Mental and Moral Philosophy—Books : The Ethics of the Hindus; Madhva Logic; Studies in Philosophy and Religion.

Papers : General Will (paper contributed to Prof. K. C. Bhattacharyya Commemoration Volume); Degrees of Goodness and Badness (paper contributed to twentieth century India of the Science and Civilisation series, America); A Paper in Bengali on Darsaner Laksana—being Presidential Address at the 1948 session of Darsana-Parisad (to be published in the next issue of *Darsana*).

Satischandra Chatterjee, M.A., Ph.D.—Book : The Nyaya Theory of Knowledge.

Papers : Is Idealism Refuted (read before *Indian Philosophical Congress*, 1926); Place of Tradition in Religious Life (*Cal. Rev.*, 1927); Freud on Future of Religion (*Ind. Jour. of Psychology*, 1940); The Indian Conception of Philosophy (Presidential Address at the Ind. Phil. Section of the 1938 session of the Indian Philosophical Congress); The Nature and Status of Sense-data (*Cal. Rev.*, 1943); The Correspondence Theory of Truth and Error (*Cal. Rev.*, 1943); The Coherence Theory of Truth and Error (*Phil. Quarterly*, 1943); The Theory of External Relations (*Cal. Rev.*, 1944); The Theory of Internal Relations (*Cal. Rev.*, 1944) and the Theory of Concrete Universals (contributed to Prof. K. C. Bhattacharyya Commemoration Volume).

Sarojkumar Das, M.A., Ph.D. (Lond.)—Books : Systematic Study of Vedanta; Stephanos Nirmalendu Ghosh Lectures on Religion (ready for publication).

Adharchandra Das, M.A., Ph.D.—Books : Sri Aurobindo and the Future of Mankind; Negative Fact, Negation and Truth.

Papers : The Starting-point of Logic (*Ind. Phil. Congress*, 1928); Synthesis of Religions in Ramkrishna (the Religions of the World, Vol. II, R. K. Institute of Culture); The Concept of Non-Violence (*Cal. Rev.*, 1939); Incarnation (*Vedanta Kesari*, 1939); Mysticism and Unity in Nature (*Vedanta Kesari*, 1941); Bergson and Sri Aurobindo on Grades of Intuitions (*Cal. Rev.*, 1946); Can we Really Check the Progress of Science? (*Cal. Rev.*, 1947); The Ideal State (*Cal. Rev.*, 1947); Sri Aurobindo's Theory of Intuition (*Cal. Rev.*, 1948).

Rash Vihari Das, M.A., Ph.D.—Books : The Self and the Ideal; The Essentials of Advaitism; *Ajnana* or the Theory of Ignorance; The Philosophy of Whitehead. Kanter Darsana (a detailed comprehensive account of Kant's Philosophy in Bengali, with an Introduction by Professor K. C. Bhattacharyya—*In the press*).

Papers : The Nature of Sensa (*Indian Philosophical Congress*); Solipsism (*Indian Philosophical Congress*); The

Principle of Generalisation in Indian Philosophy (*Indian Philosophical Congress*); Bradley and Sankara (*Ind. Phil. Congress*); Vedantism and Theism (*Ind. Phil. Congress*); Appearance (*Ind. Phil. Congress*); On Negation (*Ind. Phil. Congress*); What is a Proposition? (*Ind. Phil. Congress*); Knowledge and Belief (*Ind. Phil. Congress*); Self-Knowledge (*Ind. Phil. Congress*); Scepticism (*Ind. Phil. Congress*); In Defence of Substance (*Ind. Phil. Congress*); Philosophical Thought in Hegel (*Ind. Phil. Congress*); Appearance and Things-in-themselves (*Ind. Phil. Congress*); Sensibility and Understanding (*Ind. Phil. Congress*); Logical Construction (*Ind. Phil. Congress*); Hindu Theories of Illusion (*The Open Court*), Universals and Characters (*The Monist*); Our Knowledge of Physical Objects (*The Monist*); Relations in Modern Logic (*Cal. Rev.*); Sleep and Consciousness (*Cal. Rev.*); Identity (*The Phil. Quarterly*); Fact, Thought and Existence (*The Phil. Quarterly*); Concept and Imagination in Knowledge (*The Phil. Quarterly*); On Knowledge (*The Phil. Quarterly*).

Kalidas Bhattacharyya, M.A., Ph.D.—Books: An Enquiry into the Fundamentals of Philosophy (Doctorate Thesis—*in the press*); Ultimate Standpoints in Philosophy (P.R.S. Thesis—to be shortly published).

Papers: Some Aspects of Belief (*The Philosophical Quarterly*); Negation as a Fact (*The Philosophical Quarterly*); Object and Appearance (*The Philosophical Quarterly*); Memory and Knowledge (*The Phil. Quarterly*); Essence, Universal and Thought (*The Phil. Quarterly*); The Idea of Noumenon (*Cal. Rev.*, 1927); Knowledge as Knowing and Knowness (*Cal. Rev.*, 1937); Alternate Forms of Politics (*Cal. Rev.*, 1943); Content and Object (contributed to Prof. K. C. Bhattacharyya Commemoration Volume); The Criterion of Reality (Symposium *Ind. Phil. Congress*, 1947); Desavicara (in Bengali—*Darsana*, 1348 and 1350); Laukika o Pratibha Jnana (in Bengali—Darsana, 1349); Karyakaranasamparka (in Bengali—*Darsana*, 1350).

Abhay Ch. Guha, M.A., Ph.D.—Books: Jivatma in Vedanta; Saundaryya Tattva (in Bengali).

A. M. Ray, M.A.—Papers: Different Moralists on Veracity (*Cal. Rev.*); Veracity in its Moral Aspect (*Cal. Rev.*)

Anilkumar Raychaudhuri, M.A.—Mayavada.

Syamakumar Chattopadhyay, M.A.—Book (ready for publication) The Philosophy of William James.

APPENDIX IV

(A Select list of Research Publications of Members of the Department of MODERN INDIAN LANGUAGES)

Late Professor Dineshchandra Sen, D.Litt.—Books : History of Bengali Language and Literature; Bengali Prose Style; Eastern Bengal Ballads; The Folk Literature of Bengal; বঙ্গভাষা ও সাহিত্য ; বৃহৎ বঙ্গ ; রামায়ণী কথা; Bengali Ramayanas.

Khagendranath Mitra, M.A., Professor Emeritus—Books : পদামৃত মাধুরী (edited) বিদ্যাপতির পদাবলী (edited); মালাধর বসুর শ্রীকৃষ্ণ-বিজয় (edited) বৈষ্ণব-রস সাহিত্য।

Professor Srikumar Banerjee, M.A., Ph.D.—Books : বঙ্গসাহিত্যে উপন্যাসের ধারা ; বাংলা সাহিত্যের কথা ; Critical Theories and Poetic Practice in the Lyrical Ballads.

Sailendranath Mitra, M.A.—Papers : The Long-lost Sanskrit Vidyasundar (Proceedings and Transactions of the 2nd Oriental Conference, Cal. 1922); Early English Theatre and the Bengali Drama (*Cal. Rev.*, Nov. 1923); কবিশেখরের বিদ্যাসুন্দর (সাহিত্য পরিষৎ পত্রিকা, ষটত্রিংশ ভাগ, ২য় সংখ্যা, ১৩৩৬); গিরিশচন্দ্র ; বাঙ্গালা নাটকে ভাবের মিলন ; বহুবাজারের প্রাচীন নাট্যসমাজ।

Tamanashchandra Dasgupta, M.A., Ph.D.—Books : Aspects of Bengali Society (C.U.); নারায়ণ দেবের পদ্মাপুরাণ (edited); The Maharastra Purana (edited); The Sarada Mangal (edited); মাণিক দত্তের চণ্ডীকাব্য (edited).

Priya Ranjan Sen, M.A.—Book : Western Influence on Bengali Literature (C.U.)

Biswapati Chaudhuri, M.A.—Books : কাব্যে রবীন্দ্রনাথ; কথাসাহিত্যে রবীন্দ্রনাথ ; A Critical Study of the Songs of Jnanadas; A Critical Study of the Songs of Gobindadas.

Manindramohan Bose, M.A.—Books : Post Chaitanya Sahajiya Cult of Bengal; সহজিয়া সাহিত্য; রাগাত্মিকা পদাবলী; বাংলা সাহিত্যের ইতিহাস; ১ম ও দ্বিতীয় খণ্ড ; দীন চণ্ডীদাস (edited)

Sashibhushan Dasgupta, M.A., Ph.D.—Books : উপমা কালিদাস ; ভারতীয় সাধনার ঐক্য ; ত্রয়ী (বাল্মীকি, কালিদাস, রবীন্দ্রনাথ) ; Obscure Religious Cults as Background of Bengali Literature; বাংলা সাহিত্যের নবযুগ ; বাংলা সাহিত্যের এক দিক ; সাহিত্যের স্বরূপ।

Jatindramohan Bhattacharyya, M.A.—Books : Puranabodhoddipika; Mahammedan Vaisnavite Poets of Bengal; Notices and Reviews of Bengali books in English journals from 1743 to 1867; History of European Writers with their Bengali works

from 1743 to 1867; Missionary Contribution to Bengali Literature from 1743 to 1867; Bengali Journals edited by Europeans from 1818 to 1867; History of Bengali Grammar; History of Bengali Lexicon from 1743 to 1867 (Thesis for Griffith Memorial Prize for the session 1937); Ketakadas Manasmangal (edited).

Amiyakumar Sen, M.A.—Books: বাংলা কাব্যে নিসর্গ; ব্রজবুলির উৎপত্তি ও ইতিহাস (Bangla Kavye Nisarga; Brajabulir Utpathi o Itihas).

Pramathanath Bishi, M.A.—Books: রবীন্দ্র কাব্যপ্রবাহ; মাইকেল মধুসূদন; রবীন্দ্র নাট্য প্রবাহ। (Rabindra Kavya-pravaha; Michael Madhusudan; Rabindra Natya Pravaha).

Haraprasad Mitra, M.A.—Books: প্রাক্ রবীন্দ্র বাংলা কাব্য (Prack-Rabindra Bangla Kavya).

APPENDIX V

(A Select list of Books and Papers published by the Members of the Department of ECONOMICS)

P. N. Banerjea, M.A., D.Sc. (Lond.) Minto Professor, 1919-35—Books: Public Administration in Ancient India (1915); Fiscal Policy in India (1922); Indian Finance in the Days of John Company (1928); Provincial Finance in India (1929); A History of Indian Taxation (1930).

Papers: The Right Fiscal Policy for India (*Cal. Rev.*, July, 1923); A Sound Currency System for India (*Cal. Rev.*, Feb., 1926); Military Expenditure of E.I.Co. (*Cal. Rev.*, June, 1927); Co-operative Finance (*Ind. Jour. of Economics*, 1928); Income Tax in India (*Ind. Jour. of Economics*, 1929).

J. P. Niyogi, M.A., Ph.D. (Lond.) University Professor of Economics (now on leave)—Books: The Evolution of Indian Income Tax (1929); Co-operative Movement in Bengal (1939).

Papers: Customs and Transit Duties in Bengal in Early British Rule (*Jour. of the Dept. of Letters*, C.U. 1920); Customs and Transit Duties in the Madras Presidency during Early British Rule (*Sir Asutosh Mookerjee Silver Jubilee Volume*, 1920); The Fiscal Policy of the East India Company (*Cal. Rev.*, Nov., 1921); Taxation of Agricultural Incomes in Bengal (*Ind. Jour. of Economics*, 1926); Protection and Growth of National Capital (*Cal. Rev.*, Oct., 1933); Land Mortgage Credit (*Cal. Rev.*, Nov., 1936); Recent Income Tax Legislation in India (*Ind. Jour. of Economics*, 1937); Reserve Funds of Co-operative Banks (*Cal. Rev.*, Oct., 1937); Inspection and Audit of Co-operative Societies in Bengal (*Cal.*

Rev., April, 1939); Tax Relief and Industrial Enterprise in British India (*Cal. Rev.*, July, 1942); Authoritarian Element in the Standard of Living (*Cal. Rev.*, Oct., 1943).

Panchanandas Mukherjee, M.A., Lecturer, 1917-28.—Books: Co-operative Credit Movement in India, 1914; Indian Constitutional Documents (1600-1918) 1918; Indian Constitution, 1920; Principles and Methods of Taxation in Ancient India (*Sir Asutosh Mookerjee Silver Jubilee* Vol. III, Pt. III).

Radhakamal Mookerjee, M.A., Ph.D., Lecturer, 1917-21—Book: The Foundations of Indian Economics, 1916.

Papers: The Guild in Modern India, Its Constitution and Expansion (*Sir Asutosh Mookerjee Silver Jubilee*, Vol. I, 1920); Data on Regional Economics (*Sir Asutosh Mookerjee Silver Jubilee*, Vol. I, 1920); Communal Organisation of Industries as the Regional Type of India (*Jour. of the Dept. of Letters*, Vol. II, 1920);

(*N.B.*—Dr. Mookerjee published many other volumes after leaving Calcutta.)

Ramchandra Rau, M.A., Ph.D., Lecturer, 1920-39.—Books: Present Day Banking in India (C.U.), 1922; The Economics of the Leather Industry (C.U.), 1925.

Papers: The Indigenous Banker of India (*Journal of the Department of Letters*, Vol. III, 1920); Indian Exchange in 1920 and Its Lessons (*Cal. Rev.*, Feb., 1922); Indian Banking Reform (*Cal. Rev.*, March, 1922); A Plea for Banking Legislation in India (*Cal. Rev.*, 1922); Fiscal System of India (*Cal. Rev.*, June, 1922); Some Currency Lessons of the War (*Cal. Rev.*, Dec., 1924); Gold Bullion Standard (*Cal. Rev.*, Oct., 1926); The Future of Foreign Exchange Banks (*Cal. Rev.*, Nov., 1930); The Banking System of Japan and what it teaches us (*Jour. of the Dept. of Letters*, Vol. XXI, 1931); Bank for International Settlements and India (*Mysore Economic Journal*, May, 1933); Reserve Bank and Agricultural Credit (*Ind. Co-op. Rev.*, 1937).

Prof. Satischandra Ray, M.A. (retired in 1932)—Books: Rural Reform, 1911; Agricultural Indebtedness in India and its Remedies, 1915; The Permanent Settlement in Bengal, 1915; Land Revenue Administration in India, 1915.

Bejoykumar Sarkar, A.B. (*Harvard*)—Books: Industrial Development of Japan, 1916; Inland Transport and Communications in Medieval India (C.U.), 1925.

Praphullachandra Ghosh, M.A.—Books : The Theory of Profits (C.U.), 1933.

Papers : Will Exchange ever rise to two shillings Gold (*Cal. Rev.*, Oct., 1921); Middle Class Unemployment in Bengal (*Cal. Rev.*, April, 1924); The Average Income of India (*Cal. Rev.*, Feb., 1925).

Satischandra Ghosh, M.A. (1924-31)—Books : Railway Economics (C.U.), 1924; Lectures on Indian Railway Economics, Pts. I-III (C.U.), 1927; Organisation of Railways (C.U.), 1927.

Rohinimohan Chaudhuri, M.A., Ph.D. (1917-48)—Book : Evolution of Indian Industries (C.U.), 1939.

Sir Jehangir Coyajee (1917-31)—Books : The Indian Fiscal Problem, 1924; The Indian Currency System (1835-1926).

Paper : Characteristics of Ancient Indian Trade (*Sir Asutosh Mookerjee Silver Jubilee* Vol. I).

Sarojkumar Basu, M.A., Ph.D.—Books : Industrial Finance in India, 1937; Industrial Credit in War and Post-War Economy, 1944; Recent Banking Developments, 1946; Settlement of Sterling Balances, 1946; Financing Post-War Industry, 1948.

Papers : Industrial Mortgage Banks (*Calcutta Review*, July, 1934); The New Economic Bank of Poland (*Cal. Rev.*, Sept., 1934); Future of Industrial Finance in India (*Cal. Rev.*, May, 1939); An Industrial Mortgage Bank for India (*Cal. Rev.*, June, 1939); Recent Developments in Central Banking and their Lessons for India (*Cal. Rev.*, Nov.-Dec., 1939); Some Aspects of Cheap Money Policy (I.E.C., 1947).

Jogischandra Sinha, M.A., Ph.D.—Books : The Economic Annals of Bengal, 1927; Indian Currency Problems during the last Decade, 1938.

Papers : Indian Guilds (*Bengal Econmic Journal*, 1918); History of Indian Commerce (1765-1813) (*Sir Asutosh Mookerjee Silver Jubilee*, Vol. I); Central Bank Constitutions (*Ind. Jour. of Economics*, Jan., 1932); Currency Events During the Depression (*Cal. Rev.*, Jan.-Feb., 1938); Devaluation and Recovery in India (*Sankhya*, Nov., 1938); The Road-Rail Problem (*Ind. Jour. Economics*, Oct., 1936); Economic Conditions of the Ceded Districts (1800-1807) (*Ind. His. Records Commission*, 1941).

Khagendranath Sen, M.A.—Book : Economic Reconstruction of India (C.U.) 1939.

Papers : The Modern State (*Cal. Rev.*, 1927); Fallacies of Economic Planning (*Ind. Jour. of Economics*, Jan., 1935).

Panchanan Chakravarti, M.A.—Paper : Costs and Prices in Domestic and Export Industries (*Ind. Jour. Econ.*, 1936).

Satyendranath Sen, M.A.—Book : The State in Labour Disputes, 1947.

Papers : An Examination of the Law of Enhancement of Rent in Bengal (*Ind. Jour. Econ.*, 1936).

Akshaykumar Sarkar, M.A. (1923-33)—Book : The Indian Currency, 1925.

Papers : High Prices (*Cal. Rev.*, Jan. 1922); The Report of the Fiscal Commission (*Cal. Rev.*, April, 1923); The Indian Currency (*Jour. of the Dept. of Letters*, Vol. XXII. 1933).

J. C. Kydd, M.A. (1919-21)—Book : A History of Factory Legislation in India (C.U., 1921).

Haricharan Ghosh, M.A.—Book : Indian Finance under the Reforms, 1930.

Papers : A Scheme for Financial Adjustment between Provincial and Central Governments in Federal India (*Ind. Jour. Econ.*, 1934); A Note on Correlation between Agricultural Production and Stability of Population in Jessore and Midnapore (*Ind. Jour. Econ.*, 1935); The Rationale of Economic Planning for India (*Ind. Jour. Econ.*, 1936); Some Aspects of Rail-Road Competition in India (*Ind. Jour. Econ.*, 1937); Some Indigenous Banks in South India (*Ind. Jour. Econ.*, 1938); A Critical Review of Finances in Bengal (1937-41) (*Ind. Jour. Econ.*, 1942); Food Problem in Bengal (a pamphlet), 1943; Future of War Industries in Post-War India (*Ind. Jour. Econ.*, 1945); Rationale of Salt Tax in India (*Ind. Jour. Econ.*, 1947).

Karunamay Mukherjee, M.A. (Research Scholar (1944-46)—Papers : The Bengal Famine of 1943 and Relief Operations (*Cal. Rev.*, July, 1946); Bengal Famine of 1943 and Problems of Agricultural Rehabilitation (*Cal. Rev.*, 1946); Bengal Famine of 1943 and Problems of Rehabilitation of Artisans (*Cal. Rev.*, Jan., 1947); Problems of Agricultural Labour in India (*Ind. Jour. Econ.*, 1947).

Benoykumar Sarkar, M.A., Dr. (Honoris Causa), (Head of the Department since 1947)—Books : Economic Development, Vol. I (1926), Vol. II (1932); Comparative Pedagogies in relation to Public Finance and National Wealth (1929); Ekaler Dhandaulat o Arthashastra, 2 vols. (1935); Imperial Preference *vis-a-vis* World Economy in relation to the International Trade and National Economy of India (1934).

Brochures : Shipping and Railway Policies in Economic Legislation (1926); The Law and the Cultivator, the example of France (1926); The Bank-notes and Note-banks of Germany (1926); Types and Tendencies in American Banking (1927); Earnings and Social Values of Clerical Labour (1927); Comparative Birth, Death and Growth Rates (1932); The Theory of Wages in the Light of Social Insurance and Public Finance (1936); Social Insur-

ance, Legislation and Statistics (1936); The New Foundations of French Social Economy (1938); Indian Currency and Reserve Bank Problems (2nd Ed., 1934).

PAPERS: Reserve Bank Bill, 1927 (*Jour. of the Ben. National Chamof Com.*, Sept., 1927); Trusts and Rationalisation (*Cal. Rev.*, Oct., 1927); The New Economics of Land (*Cal. Rev.*, Oct. 1927); Aspects Economiques et Poliques de la Civilisation Hindoue (*Revue de Synthese Historique*, Paris, Feb., 1930); Contacts with Economic Italy (*J. B. N. C. C.*, June, 1931); Industrial Cartels and Economic Institutions in Germany (*J. B. N. C. C.*, Sept., 1931); Cartels in Japan (*J.B.N.C.C.*, Dec., 1931); The World Economic Crisis in its bearings on the 2nd and the 1st Industrial Revolutions (*J. B. N. C. C.*, 1932); Strength and Limitations of Economic Japan (*Cal. Rev.*, Nov., 1933); Principles of Land Mortgage Banks (*Cal. Rev.*, March, 1934); The Problem of State Control in Indian Coal Industry (*Cal. Rev.*, Sept., 1934); Relativities in Food, Nutrition and Efficiency Economics (*Cal. Rev.*, Sept., 1936) Neuorjentierungen in Optimum und writschaftlicher Leistungsfachigkeit (*Bevoelkerungsfragen*, Munich, 1936); The Population Trends in India with reference to Food and Nutrition (*Ind. Jour. of Econ.*, 1940); The Post-War World Economy (*Cal. Rev.*, Dec., 1941); Inflation in Theory and Practice (*Cal. Rev.*, May, 1943).

Bhabatosh Datta, M.A.—PAPERS: Interest and the Complex of Preferences (*Ind. Jour. of Econ.*, 1938-39); The Continuity of Assumption in Economic Analysis (*Ind. Jour. of Econ.*, 1939-40) and Background of Ranade's Economics (*Ind. Jour. of Econ.*, 1941-42).

APPENDIX VI

(A SELECT LIST OF RESEARCH PAPERS IN POLITICAL SCIENCE. THE DEPARTMENT WAS STARTED IN THE PRESENT SESSION)

POLITICAL SCIENCE

Prof. D. N. Banerjee, M.A.—BOOKS: The Indian Constitution and its Actual Working; The Reforms Scheme: A Critical Study; Early Land Revenue System in Bengal and Bihar, Vol. I; Early Administrative System of the East India Company in Bengal, Vol. I and Partition or Federation?

D. N. Sen, M.A., Ph.D.—BOOKS: The Problem of Minorities; Revolution by Consent.

B. N. Banerjee, M.A.—BOOKS: A Critique of the White Paper (in collaboration with members of the Politics Club, 1933); Indian Consti-

tution : A Survey (1934); New Constitution of India (in collaboration with S. K. Lahiri, 1936).

PAPERS : Constitutional Developments through Conventions (*Ind. Jour. of Political Science*, 1940); Working of Provincial Autonomy in Bengal (*Ind. Jour. of Political Science*, 1941); Responsible Government in India, Present and Future (*Ind. Jour. of Political Science*, 1942).

N. C. Bhattacharyya, M.A.—BOOK : Some Bengal Villages (jointly with L. A. Natesan, 1932).

PAPERS : A Critique of White Paper (in collaboration with other members of the Politics Club, 1923); Authoritarian Education and International Peace (*Cal. Rev.*, 1937); Dumberton-Oaks Charter (*The Indian Council of World Affairs*, 1941).

Khagendra Nath Sen, M.A.—See Appendix V.

Nareshchandra Ray, M.A., Ph.D.—See Appendix II.

APPENDIX VII

PUBLICATIONS OF THE DEPARTMENT OF ECONOMICS AND THAT OF COMMERCE ARE MOSTLY COMMON. BUT SOME PUBLICATIONS OF THOSE WHO WORK MOSTLY IN THE LATTER DEPARTMENT ARE GIVEN BELOW :—

Harischandra Sinha, M.Sc., Ph.D.—BOOK : Early European Banking in India, 1927.

PAPERS : Seasonal Fluctuations in the Indian Bank Rate and the Remedy (*Bankers' Magazine, London*, Oct., 1924); Foreign Exchange in Indian Banks (*Cal. Rev.*, Oct., 1924); Forward Exchange in Indian Banks (*Ind. Jour. Econ.*, Jan., 1925); First Ltd. Liability Bank in India (*Bankers' Magazine*, Lond., April, 1927); Co-operative Marketing (*Bengal Co-operative Quarterly*, 1928); Marketing of Jute (*Ind. Jour. Econ.*, Jan., 1929); Jute Futures in Calcutta (*Economica, London*, Nov., 1929); Country Banks of Bengal (*Bankers' Magazine*, Lond., March, 1931); Variance of Imperial Bank Advances (*Ind. Jour. Econ.*, Jan., 1932); Indian Price during the Depression (*Sankhya*, June, 1933); Indian Cultivators' Response to Prices (*Sankhya*, Dec., 1933); Indian Agricultural Statistics (*Jour. Royal Statis. Soc.*, London, Jan., 1934); Should Rupee be Devalued (*Ind. Jour. Econ.*, Jan., 1937); Ratio Question (*Sankhya*, Sept. 1937); India through the Depression (*Sankhya*, 1939); Economic and Business Statistics in India (*Cal. Rev.*, Jan., 1939);

Seasonal Factor in Indian Trade, Industry and Finance (*Sankhya*, March, 1942); Teaching and Research in Economic Statistics (*Ind. Jour. Econ.*, Jan., 1944); He also delivered a number of Addresses before cultural bodies in England in 1933-34.

Siddhanath Sen, M.A.—Paper: Some Considerations for a Reserve Bank in India (*Cal. Rev.*, Sept., 1933).

Nalinaksha Sanyal, M.A., Ph.D. (Lond.)—Books: Development of Indian Railways (C.U., 1933); India and her Inter-Asian Transport and Communications, 1947.

Papers: Measurement of Changes in the Cost of Living in Bengal (*Cal. Rev.*, Feb., 1923); Indian Railways (*Cal. Rev.*, Oct.-Nov., 1929).

Dwijendrakumar Sanyal, M.A., O.B.E.—Book: Personnel Management and Social Work, 1948.

Haridas Ghose, M.A.—Papers: The Indian Sugar Industry and what the Railways can do (*Cal. Rev.*, Sept. 1933); Indian Sugar Industry (*Cal. Rev.*, Jan., 1934); Transport Problems of Bengal (*Cal. Rev.*, June, 1935).

Bimalchandra Ghosh, B.Sc. (Econ.) (Lond.)—Books: A Study of the Indian Money Market, 1943; The Rupee and the War, 1943; An Introduction to Banking Principles, Practice and Law, 1944; Planning for India, 1945; Industrial Location, 1946.

Bimalendu Dhar, M.A., B.L.—Papers: Repatriation of Sterling Loans (*Cal. Rev.*, Nov., 1943); From Debtor to Creditor—The First Stage of Compulsory Repatriation of Sterling Loans (*Cal. Rev.*, Jan., 1944); Cheap Money Policy (*Ind. Jour. of Econ.*, July, 1947).

APPENDIX VIII

(A Select list of research publications in Anthropology by members of the Department)

ANTHROPOLOGY

Prof. K. P. Chattopadhyay—Books: A Plan for Rehabilitation in Bengal (Calcutta, 1946); Report on Santals in Bengal (Calcutta 1947); Municipal Labour in Calcutta (Calcutta, 1947).

Papers: Malayali Kinship Terms (*Man in India*, 1921); Levirate and Kinship in India (*Man in India*, Vol. xxii, 1922); Newar Culture (*Jour. Asiatic Soc. of Bengal*, 1923); The Manda Festival of Chota Nagpur (*Jour. and Pro-*

ceedings *Asiatic Soc. of Bengal*, new series, Vol. xxx, 1934 No. 1, issued 17th December, 1934); History of Indian Social Organization (*Jour. of the Asiatic Soc. of Bengal*. Letters Vol. 1, 1935 No. 3, issued 21st Feb., 1936); Indian Oil Presses and Oil Extraction (*Jour. of the Ind. Anthropological Institute*, 1936); The Cadak Festival in Bengal (*Jour. of the Asatic Soc. of Bengal*. Letters Vol. 1, 1935, No. 3, issued 28th February, 1936); The Importance of Anthropological Studies in India (*Cal. Rev.*, Jan., 1939); The Nation in the Living (*American Jour. of Physical Anth.*, Vol. xxv, No. 2, July-Sept., 1939); Satakarni Succession and Marriage Rules (*Jour. Royal Asiatic Soc. of Bengal*. Letters Vol. v, 1939, No. 2, issued 16th August, 1940); Application of Statistical Methods to Anthropological Research (*Sankhya*, Vol. vi, Part 1, March, 1942); Dharma Worship (*Jour. Royal Asiatic Soc. of Bengal*, Letters, Vol. viii, 1942, Article No. 4); Korku Funeral Customs and Memorial Posts (*Jour. Royal Asiatic Soc. of Bengal*. Letters, Vol. ix, 1943, Article No. 8); Two Indian Rafts (*Jour. Royal Asiatic Soc. of Bengal*. Science Vol. x, 1944. Article No. 3); Korku Marriage Customs and Some Changes (*Jour. of the Royal Asiatic Soc. of Bengal*. Letters Vol. xii, No. 2, 1946); Economic Condition of the Korkus of Melghat Forest (*Jour. of the Royal Asiatic Soc. of Bengal*. Letters Vol. xii, No. 1, 1947); Khasi Kinship and Social Organisation (*Anth. Papers*, new series, No. 6, 1941); Contact of Peoples as affecting Marriage Rules (Presidential address, Section of Anthropology. (*Ind. Science Congress*, 1931); Vedic Kinship Terms (*Jour. of the Ind. Anth. Inst.*); Conflict and Social Behaviour (*Rai S. C. Ray Bahadur Memorial Volume*).

Mr. T. C. Das—Books : The Hos of Seraikella (jointly with Dr. A. N. Chatterji by the C.U., 1927); The Bhumijas of Seraikella (C.U., 1931); The Wild Kharias of Dhalbhum (C.U., 1931); The Purums : An Old Kuki Tribe of Manipur (C.U., 1945); Bengal Famine (1943) : As Revealed in a survey of the Destitutes in Calcutta (*in the Press*).

Papers : High-Caste Hindu Marriage of Bengal with special reference to its Folk Elements (*Jour. of the Dept. of Letters*, C.U. Vol. viii, 1922); Sun-Worship amongst the Aboriginal Tribes of Eastern India (*Jour. of the Dept. of Letters*, C.U., Vol. xi, 1924); The Cultural Significance of Fish in Bengal (*Man in India*, Vol. xi, 1931); The Cultural Significance of Fish in Bengal (*Man in India*, Vol. xii, 1932); Some notes on the Economic and Agricultural Life of a little known tribe on the Eastern Frontier of India (*Anthropos Band*, xxxii, 1937); Clan-Monopoly of Personal Names among the Purum Kukis (*Man in India*, Vol. xxxix, 1939); Notes on a

type of Fish Gorge from Bengal (*Ethnos*, Nos. 3-4, 1940); Disposal by Exposure among the Bathuris of Mayurbhanj State (*Man in India*, Vol. xi, 1940); Cultural Anthropology in the Service of the Individual and the Nation (Presidential Address, Anth. Sec., *Ind. Science Congress*, 1941); A Possible Relic of Matrilocal Residence among the Old Kuki Tribes of Manipur, Assam (*Anth. Papers*, new series, No. 6, 1941); Practical Steps towards the Improvement of Museums in India (*Cal. Rev.*, Nov., 1943); The Proposed Hindu Code: A Sociological Analysis (*Cal. Rev.*, June and July, 1944); Kinship and Social Organisation of the Purum Kukis of Manipur, Assam (*Jour. of the Dept. of Letters*, C.U., Vol. xxviii, 1935).

Mr. T. C. Roychaudhuri—Papers: On Jackal Worship (*Man in India*, Vol. III, 1923); The Bhumyas of Mayurbhanj (*Man in India*); The Varendra Brahmanas of Bengal (physical) (*Man in India*, 1933); The Khasis (*Jour. of the Dept. of Letters*, C.U., Vol. xxvi, 1935). He read a number of papers at the Indian Science Congress in its different Sessions.

Dr. A. N. Chatterjee—Book: The Hos of Seraikella (jointly with Mr. T. C. Das, Anthropological Series, 1927).

Papers: Vital capacity of the Bengali Students (*Jour. of the Dept. of Letters*, C.U., 1935); First Studies on the Health and Growth of the Bengali Students (C.U., 1933); The Bengalee School-Boy, his Physical Development (*Zeitschrift fur Rassenkunde Band*, viii, Heft 1/1938); Physical Development and Nutrition of the Bengalee School Boy (*Ind. Jour. of Pediatrics*, July, 1938). The variation in Stature and Cephalic Index among the Bengali College Students (Presidential address, Anth. Sec., *Ind. Science Congress*, 1948). He also read a number of papers at different sessions of the Indian Science Congress.

Capt. R. N. Basu—Papers: Studies in Pulse and Respiration rates among the Bengalees (with Mr. J. K. Gan, *Indian Culture*, 1935); Some observations of the Fizion Hairs (with Mr. J. K. Gan, *Indian Culture*, 1935); Studies in Eyebrows among the Bengalees (*Anth. Papers*, new series No. 6, 1941); Studies in Blood Groups in the Khasis (*Nature*, 1941) Incidence of the Muscle Palmaris Longus among the Marwadis (*Anth. Papers*, new series, No. 6, 1941); The Pterion in Indian Human Crania (with Mr. M. N. Basu) (*Anth. Papers*, new series, No. 6, 1941). He also read a few papers at the Indian Science Congress.

Dr. J. K. Bose—Books: The Garo Law of Inheritance (C.U., 1941); The Aimol Kukis of Manipur (Premchand Roychand Studentship

Thesis. Ready for the press); Culture Contact among the Garos of Eastern Bengal (Ph.D. Degree Thesis of the University of London. Ready for the press).

PAPERS : Cross-Cousin Marriage in Assam (Anthrops, Vienna Vol. xxxiv, 1939); Nouveaux Examplaires Indiens De Cithare En Radean (*L'Anthropologie*, Tome 48, Nos. 5 and 6, 1938); Marriage Classes among the Chirus of Assam (*Man in India*, Oct., 1937); Woangala Festival of the Garos (*Man in India*, Vol. xviii, 1938); Ordeals among the Garos (*Man in India*, Vol. xviii, No. 2 and 3, 1938); Origin of Cross-cousin Marriage in Assam (*Nature*, 20th Feb., 1937); Origin of Tri-clan and Marriage-classes in Assam (*Man in India*, May, 1937); The Nokrom System of the Garos (*Man in India*, March, 1936); Origin of Levirate in Assam (*Nature*, 6th June, 1936); Unknown Tribes of the Shan States (*Science and Culture*, Aug., 1936); Gana Nekina Ceremony of the Garos (*Man in India*, Jan.-Mar., 1935); Dual Organisation in Assam (*Jour. of the Dept. of Letters*, Vol. xxv, 1934); A Preliminary Report of the Excavations at Kameng (Manipur) Assam (*Cal. Rev.*, November, 1935); Religion of the Aimol Kukis (*Man in India*, Jan.-March, 1934); The Marrings of Manipur (*Cal. Rev.*, April, 1934); Social Organisation of the Aimol Kukis (*Jour. of the Dept. of Letters*, Vol. xxv, C.U. 1934); Training within Industry, Calcutta 1947.

Mr. M. N. Basu—BOOKS : The Bunas of Bengal, 1938; Museum Method and Process of Cleaning and Preservation, 1943; Library and Preservation, 1948; The Noluas of Bengal (approved thesis for P.R.S.) (Monograph ready for publication).

PAPERS : A Munda Colony in Bengal—The Compact Mundas (*Jour. of the Dept. of Letters*, Vol. xxvii, C.U., 1935); Determination of the relative feeling-tone of colour Impressions of the Koms of Manipur (*Ind. Jour. of Psychology*, Jan.-April-July, 1935); The Kom-Dance of Manipur (*Cal. Rev.*, 1935); The Anthropometric study of the Bansphors of Bengal (*Ind. Science Congress*, 1935); Possibility of a Racial Significance of Colour Preference (*Ind. Jour. of Psychology*, July-Oct., 1936); Ethnic Analysis of the Koms of Manipur (*Ind. Science Congress*, 1936); Blood-Pressures of the Noluas of Bengal (*Man in India*, July, 1938); Blood-groups of the Noluas of Bengal (*Nature*, April, 1938); The Koms of Manipur (*Cal. Rev.*, Feb., 1939); Cleaning of Copper, Bronze and Brass specimens in Museums (*Science and Culture*, Vol. vi, p. 615, 1941); Division of Labour in Economic organisation among the Rajbanshis or the Parois—a class of fishermen of Jessore, Bengal (*Ind. Science Congress*, 1941); Pterion in Indian Human Crania (Anthropological Papers, new series No. 6, C.U., 1941, Jointly with Capt. R. N. Basu); Study of the

Head-hair of the Noluas of Bengal (Anthropological Papers, new series, No. 6, C.U., 1941); Cleaning, Preservation and repairing of glass objects in Museum. (*Ind. Science Congress*, 1941); Cleaning of Oil Paintings on wood (*Science and Culture*, May, 1942); Preservation of Books affected with insects (*Science and Culture*, June, 1942); Physical Anthropology of the Bhuiyas of Mayurbhanj (*Science and Culture*, June, 1942. Jointly with Capt. R. N. Basu); Origin and History of Museums (Cal. Rev., July, 1944).

Mr. D. Sen—Papers: On the Palaeolithic Implements from the Siwaliks (*Journal of Letters*, Anth. Series, C.U. 1936-37); On the East Coast Fishermen of India (*Jour. of Letters*, Anthropological series, C.U., 1936-37); Prehistoric Cultures and Ancient River-Valleys of India (*Cal. Rev.*, April, 1938). He also read a number of Papers at different Sessions of the Indian Science Congress.

Dr. P. C. Biswas—Papers: Concept of Disease among the Primitive People of India (*Jour. of the Dept. of Letters*, C.U., 1935); Studies of the Whorl on Head-Hair in Bengalis (*Zeitschrift Fur Rassenkunde Band*, viii, Heft. 3/1938); On the Palmar Prints of the Oriyas (*Jour. of the Dept. of Science*, Vol. Ind. 2, C.U., 1938); Uber Hand and Fingerleisten von Indern *Zeitschrift fur Morphologie Und Anthropologie Band*, xxxv, Heft. 3/1936; Studies on the Heredity of Palmar Pattern (*Jour. of Ind. Anth. Inst.*, Vol. ii, Nos. 3 and 4, 1939-40); On the Palmar Prints of the Bengalis (*Jour. of Ind. Anth. Inst.*, Vol. ii, Nos. 3 and 4, 1939-40).

Mr. N. K. Bose—Books: Prehistoric Excavation in Mayurbhanj (in C.U. press); Cultural Anthropology, 1929.

Papers: The Spring Festival in India (*Man in India*, Vol. vii, 1927); Two Cases of Cultural Variations (*Cal. Rev.*, Oct., 1935); Age of the Boulder-Conglomerates at Kuliana, Mayurbhanj (*Anth. Papers*, new series, No. 6, 1941); The Hindu Method of Tribal Absorption (*Science and Culture*, Vol. vii, 1941).

Mr. G. S. Roy—Book: Municipal Labour in Calcutta jointly with Prof. K. P. Chattopadhyay, Calcutta, 1947.

Paper: A Study on the Physical Characters of the Rajbangsis (*Jour. of the Royal Asiatic Soc. of Bengal*, Vol. xii, No. 1, 1947).

Mr. H. C. Chakladar—Papers: Vatsyayana, the author of Kamasutra, date and place of origin (*Jour. of the Dept. of Letters*, C.U., 1921); The first outlines of a systematic Anthropology of Asia by Prof. V. Guiffrida-Ruggeri-Translated (*Jour. of the Dept. of Letters*, C.U., 1921); Social Life in An-

cient India—Studies in Vatsyayana's Kamasutra (1929); Problems of the Racial Composition of the Indian Peoples (Presidential address, 1936—*Ind. Science Congress*, Anth. Sec.).

Late Rao Bahadur L. K. Anantha Krishna Iyer—Books: Lectures on Ethnography, 1925; The Mysore Tribes and Castes, 1930; The Cochin Tribes and Castes, 1912.

Late Dr. Panchanan Mitra—Book: Prehistoric India (C.U., 1927) and numerous papers in Scientific journals.

Mr. S. B. Dasgupta (Research Scholar)—Paper: The Cult of Magdesvari (*Anth. Papers*, new series, No. 6, 1941).

Mr. Ramkrishna Mukherjee (Research Scholar)—Papers: The Khasi Huts of Mawphlang (jointly with others) (*Anth. Papers*, new series, No. 6—1941); A Note on Concentration of Income in Bengal Villages (*Sankhya*, Vol. vii, 1945); Sur Une Methode detude de Structure Economique (*Bulletin de L'association de Geographie Francaise*, Paris, 1948).

Mr. Biswapada Dasgupta—Paper: Sedentary Games of Rajbangsis (*Anth. Papers* new series, No. 6, 1941).

APPENDIX IX

(A Select List of Research Publications by Members of the Department of

ISLAMIC HISTORY)

A. B. M. Habibullah, M.A., Ph.D. (Lond.)—Books: Foundation of Muslim Rule in India (published by Sh. U. Ashraf, Lahore, 1945); Chapters on Pre-Mughal History of Bengal—in Dacca History of Bengal, Vol. ii.

Papers: Sultana Raziya (*Ind. His. Quarterly*, 1940) Administration of the Memeluke Sultans of Delhi (*Ind. His. Quarterly*, 1943); Re-evaluation of the Literary Sources for the Pre-Mughal History of India (*Islamic Culture*, 1941); Organization of the Fighting Forces of the Delhi Sultanate (*Cal. Rev.*, 1943); Arakan in the Pre-Mughal History of Bengal (*Jour. of Royal Asiatic Soc. of Bengal*, 1944); First Mughal Attack on India (*Ind. His. Congress*, 1943); A Farman of the Mughal Emperor Mahammad Shah (*Ind. His. Records Commission*, 1947).

M. L. Roychaudhri, M.A.—Books : Din-i-Ilahi (or Religion of Akbar) (C.U.); Egypt in 1945 (C.U.); Music in Islam (Griffith Prize Thesis *(in the Press)*; State and Religion in Moghal India *(in the Press)*.

Papers : Idol Worship in Pre-Islamic Arabia (*Cal. Rev.*, C.U.); Was Akbar Literate? (*Ind. His. Quarterly*, Calcutta); Historical Value of Badauni (*Ind. His. Congress*, Allahabad); Political Philosophy of the Mughal Empire (*Ind. Culture*, Calcutta); Al-Jeziah (*Ind. Culture*, Calcutta); Sufis and Music (*B. C. Law Com. Volume*, Calcutta); Genesis of Music in Islam (*Cal. Rev.*); Introduction to the Study of Music in Islam (*Cal. Rev.*); Hindu Contribution to Persian Culture (*B. O. Research Soc. Jour.*, Patna); Literacy in Islam (*Bengal : Past and Present*); Sanad of Capt. Browne of E.I.Co. (*Ind. His. Records Commission*, Baroda); Dewani and Clive (*Ind. His. Records Commission*, Udaipur); Ghatwali Tenure of early E.I.Co. (*Ind. His. Records Commission*, Mysore); Christians at the Mughal Court (*Ind. His. Congress*, Hyderabad); Language of the Mughal Court (*Ind. His. Congress*, Lahore); Hindu-Muslim Culture in the Mughal Court (*Ind. His. Congress*, Patna).

A Mahdi Husain, M.A., Ph.D.—Books : The Rise and Fall of Md. B. Tughluq (*Luzac and Co.*, 1938, London); Futuhen-Salatin of Irani—Original Text, (Agra); A Critical Study and translation from the Original of the Rehlah of Ibn Battuta *(in the Press)*.

Papers : The Sanctity of Agra, a Critical Study of Pre-mutiny Records of Agra (*Cal. Rev.*); The Ideals of Monarchy, as depicted by Barani (*Ind. His. Records Commission*); Social Condition under Muhammad B. Tughluq (*Ind. His. Congress*).

S. K Roy, M.A.—Book : Humayun in Persia (p. 129, *Royal Asiatic Soc. of Bengal*, 1948).

Paper : The Death of Himu (*Dacca Univ. Studies*).

Muhibbal Hasan Khan, B.A. (Lond.)—Papers : Tipu Sultan and his English Prisoner of War (*Bengal Past and Present*, 1942); Tipu's attack on Nargund (*Bengal Past and Present*, 1944); The French in the Second Anglo-Mysore War (*Bengal Past and Present*, 1945); Tarikh-i-Hamid Khan (*Ind. His. Records Commission*, 1946); The Nizam's claim to Nargund—*Ind. His. Records Commission*, 1947); Medieval Muslim political ideas of Rebellion against the State (*Islamic Culture*, 1944); National Minorities in the U.S.S.R. (with special reference to Muslims) (published and printed by Jogeshchandra, Lahore, 1942).

S. M. Imam-ud-Din (Research Scholar and Fellow in the Department)—Papers : Geographic Influence on the early Expansion of

the Islamic State (*Cal. Rev.*, April, 1946); Raja Ganesh of Bengal (*Cal. Rev.*, Nov. 1946); The Tarikh Khan-i-Jahani (*Islamic Culture*, April and July, 1948); The Origin of the Afghans (*Islamic Culture*); Khan-i-Jahan Lodi and his Ancestors (*Islamic Culture*); Four Medieval Saints (*Jour. of Royal Asatic Soc.*).

APPENDIX X

(A Select Illustrative list of Research Publications by Members of the Department of

ANCIENT INDIAN HISTORY AND CULTURE)

Professor H. C. Raychaudhuri, M.A., Ph.D., Carmichael Professor (1936-

Books: Political History of Ancient India (4th Edn., 1938, C.U.); Early History of the Vaishnava Sect (2nd Edn., C.U.); Studies in Indian Antiquities (1932, C.U.); History of Bengal (Dacca, Vol. I, 1st three chapters); Advanced History of India (Joint Author).

Professor N. R. Ray, M.A., D.Phil., D.Litt. (Leiden), Bagiswari Professor of Indian Fine Arts—Books: Maurya and Sunga Art (C.U.); Sanskrit Buddhism in Burma (C.U.); Theravada Buddhism in Burma (C.U.); Indo-Burmese Art (*in the press*); Brahmanical Gods in Burma (C.U.); Dutch Activities in the East; Contributed a Chapter to History of Bengal (Dacca, Vol. I).

Papers: Early traces of Buddhism in Burma (*J.G.I.S.*, Vol. VI, Nos. 1 and 2).

Dr. Kalidas Nag—Books: Art and Archaeology Abroad (C.U.); India and the Pacific World; Greater India.

Dr. J. N. Banerjee—Books: Pratimalaksanam (C.U., 1932); The Development of Hindu Iconography (C.U., 1941); Contributed a Chapter to History of Bengal (Dacca); Hindu Iconography (being published in the *Jour. of the Ind. Soc. of Oriental Art*).

Published a number of papers on Art, Iconography, Numismatics and Religious History of Ancient India in various antiquarian and art journals.

Dr. H. C. Ray, M.A., D.Lit. (Lond.) (now in Colombo)—Books: Dynastic History of Northern India (2 Vols., C.U.).

Papers: Economic Policy and Functions of the Kautilya State (*Jour. of the Dept. of Letters*, C.U.); Position of Brahmanas in Kautilya (*Proc. 2nd Ori. Conf.*).

Dr. B. C. Sen, M.A., Ph.D. (Lond.)—Books : Some Historical Aspects of the Inscriptions of Bengal (C.U., 1942).

Papers : Studies in the Jatakas (*J.D.L.*, Vol. xx). Published papers on Indian Epigraphy in antiquarian journals.

Mr. D. P. Ghosh, M.A.—Book : Somnatha.

Paper : Orissan Painting (*J.I.S.O.A.*, Vol. ix).

Dr. D. C. Sircar—Books : The Successors of the Satavahanas in the Lower Deccan (C.U.); Select Inscriptions bearing on Indian History and Civilisation, Vol. I (C.U.); The Sakta Pithas (*in the press*); A Grammar of the Prakrit Language (*C.U. Press*, 1943); The Early Pallavas (Moti Lal Benarasi Das, Lahore, 1935).

Edited a number of inscriptions and published numerous papers on various branches of Indology in well-known antiquarian journals.

Dr. U. N. Ghoshal, M.A., Ph.D.—Books : Hindu Revenue System; Agrarian System in Ancient India; Hindu Political Theories; Hindu Public Life.

Mr. S. K. Saraswati, M.A.—Papers : The Dancing Ganesa (*Cal. Rev.*, 1938); Temples of Bengal (*J.I.S.O.A.*, 1934); Mahalakshmi (*V.R.S.* Monographs, No. 6); Early Sculpture of Bengal (*J.D.L.*, Vol. xxx); Temples at Pagan (*J.G.I.S.*, Vol. ix, No. I); Contributed a Chapter to History of Bengal (Dacca); Forgotten Cities of Bengal (*J.A.S.B.*, 1936).

Mr. N. N. Dasgupta—Book : বাঙ্গালার বৌদ্ধধর্ম

Papers : The Occupation of Bengal by the Kings of Kamarupa (*I.C.*, Vol. II, No. 1); Origin of the name 'Bengal' (*I.H.Q.*, 1946); Early Bengalis in Orissa and the neighbourhood (*I.C.*, Vol. xiii, 1947).

Mr. Durgadas Mukherjee—Book : Manjusrinamasamgiti (C.U.).

Mr. Sachchidananda Bhattacharyya—Book : Select Asokan Epigraphs.

Mr. K. K. Ganguli—Book : বাংলার ভাস্কর্য

Paper : Jewellery in Ancient India (J.I.S.O.A., Vol. x, 1942).

Mr. Kunjagovinda Goswami—Books : Memoir on Bangarh Excavation (C.U.); Pragaitihasik Mohen-jo-Daro (in Bengali, C.U.)

Paper : Kosam Inscription of Kanishka : The Year 2 (*E.I.*, Vol. xxiv).

Professor G. Thibaut, C.I.E., Ph.D., D.Sc., Carmichael Professor 1913-14)—

Paper : On the Sulba Sutras (J.A.S.B., Vol. 44).

Professor D. R. Bhandarkar, Carmichael Professor (1917-36)—Books : Carmichael Lectures, 1918 (C.U.); Ancient Indian Numismatics (C.U.); Asoka (C.U.) ; Nandi Lectures (Hindu Univ., Benares)

Paper : Foreign Elements in the Hindu Population (*I.A.*, 1911).

Mr. S. N. Majumdar Shastri—Book : New Edition of Cunningham's Ancient Geography of India (Chakravarti, Chatterjee Co.).

Dr. A. C. Das, M.A., Ph.D.—Books : Rig Vedic Culture (C.U.); Rig Vedic India (C.U.).

Dr. N. C. Banerjee, M.A., Ph.D.—Books : Kautilya; Economic Life and Progress in Ancient India; Development of Hindu Polity and Political Theories.

Mr. H.C. Chakladar, M.A.—Book : Studies in the Kamasutra of Vatsyayana (*Jour. of Ind. Soc.*).

Mr. R. Kimura—Book : Historical Study of Mahayana and Hinayana.

Dr. R. C. Majumdar (formerly Lecturer, C.U. and afterwards Vice-Chancellor, Dacca Univ.)—Book : Corporate Life in Ancient India (Kar, Majumdar and Co., Calcutta).

Dr. P. C. Bagchi (now in China)—Books : India and China; Le Canon Bouddhique En Chine; Deux Lexiques; Studies in the Tantras (C.U.); Sanskrit Chinois; Contributed a Chapter to History of Bengal (Dacca).

Paper : New Texts on Pratima Lakshana (*J.I.S.O.A.*, 1935).

Dr. Charuchandra Dasgupta (former Research Scholar)—Book : Terra-cotta Figurines.

Mr. Babua Misra (Research Fellow)—Edited Khandakhudyakarana of Brahmagupta.

Mr. Rabischandra Kar (former Research Scholar, now in Indian Museum—Papers : The Vamana-Attendant on Gupta Coins (*I.H.Q.*, 1947); A Note on the Coin of Rudravarma (*I.H.Q.*, 1944); A New Interpretation of the Gupta Chhatra and Battle-axe Coin Types (*J.N.S.I.*, 1944); A New Gold Coin of Skandagupta from North Bengal (*J.N.S.I.*, 1945); The Visuddhimagga and the Silver Bent-Bars (*I.H.Q.*, 1946).

Mr. Sudhiranjan Das (Research Scholar)—Paper : Alpana of the Kumari-vratas of Bengal (*J.I.S.O.A.*, Vol. xi, 1943).

Professor Stella Kramrisch—Books : Principles of Indian Arts (Avalu Publishers, Dresden, 1923); Visnudharmottara, A Theatise on Indian Painting (C.U., 1924, 2nd revised and enlarged

edition, 1928); History of Indian Art, Vol. vi (*Springer's History of Art*, Leipzig, 1929); Pala and Sena Sculpture (Rupam, Calcutta, 1927); Indian Sculpture (Oxford University Press, Y.M.C.A., Calcutta, 1932); (Second revised and enlarged edition, *in the press*, 1948); Asian Miniature Painting (Collab. J. Strzygowski, Klagenfurt, Austria, 1932); A Survey of Painting in the Deccan (*Royal Ind. Soc.*, London, 1937); The Hindu Temple (2 vols.) (C.U., 1946); The Arts and Crafts of Travancore (*Royal Ind. Soc.*, London, 1948); Indian Art (Phaidon Publishers, London, *in the press*, 1949).

About 50 Major Papers on Architecture, Sculpture, Painting and Ritual.

APPENDIX XI

(A Select List of Research Publications by Members of the Pali Department)

PALI

MM. Professor Satis Chandra Vidyabhusan, M.A., Ph.D.—Books: History of Medieval School of Indian Logic; Life of Buddha (in Bengali); So-Sor-thar-pa; Madhyamika-Vrtti and a few other Texts (edited).

Papers: About hundred papers published in such journals as J.R.A.S, J.A.S.B. etc.

Professor B. M. Barua, M.A., D.Litt. (Lond.)—Books: A History of Pre-Buddhistic Indian Philosophy; A Prolegomena to the History of Buddhist Philosophy; The Ajivikas; Asoka and His Edicts in three volumes; Barhut—illustrated monographs in three volumes; Theory of Progress; Ceylon Lectures; Bauddha Kosa; Majjhima Nikaya (Bengali Translation); Chakma Taras from Chittagong Hill Tracts; Mss. of Dharma-samuccaya and Karandavayuha; Burmese Mss. of late Pali Works.

Papers: Bhabru Edict of Asoka (*J.R.A.S.*, 1921); Mahayana in the Making (*Sir Asutosh Silver Jubilee Volume*); Indian Script and Tantric Code (*B.C.Law Volume*); Jataka Labels (*I.H.Q. Vol.*I); Old Brahmi Inscriptions in Udayagiri and Khandagiri Caves: Language and Style (*I.H.Q. Vol.*IV); Old Brahmi Inscription of Mahathan, Bogra District (*I.H.Q. Vol.* X); Minor Brahmi Inscription in Udayagiri and Khandagiri Caves (Revised Ed. *I.H.Q. Vol.* XIV); Hathigumpha Inscription of Kharavela (Revised Ed. *I.H.Q., Vol.* XIV)

S. N. Mitra, M.A.—Books : Prakrit Dhammapada based on a Central Asian Kharosthi Ms. (with Professor B. M. Barua) ; Balavatara (A Pali Grammar Revised with English and Bengali Translation and Notes).

Papers : Pali, Prakrit and Sanskrit in Buddhist Literature (*Sir Asutosh Silver Jubilee, Vol.* III, *Orientalia*, pt. II) ; Lumbini Pilgrimage Records in two Inscriptions (of Asoka) (*I.H.Q. Vol.* V) ; Notes on Asoka Resripts (*I.H.Q. Vols.* VII, VIII) ; Identification of Vinaya Samukase in Asoka's Bhabru Edict, (*I.H.Q. Vol.* VIII) ; Vinaya-Samukase in Asoka's Bhabru Edict.—its Identification (*Journal of the Department of Letters, Vol.* XX) ; The Rajukas in relation to the Yutas (*I.C., Vol.*1).

Dr. Nalinaksha Dutt, M.A., D.Litt. (Lond.)—Books : Early History of the Spread of Buddhism and the Buddhist Schools ; Aspects of the Mahayana Buddhism and its relation to Hinayana ; Three Principal Schools of Buddhism ; Early Monastic Buddhism in two Volumes ; History of Buddhism—(*a*) Pre-Gupta Period, (*b*) Gupta Period, (c) Post-Gupta Period being the Chapters of the history of India of the Bharatiya Itihasa Samity ; Sumangalavilashini ; Translation of Taranath's History of Buddhism ; Pancavimsatisaha-rika—Prajna—pramita ; Bodhisattva-pratimoksa-sutra and several Gilgit Mss.

Papers : Notes on Nagarjunikonda Inscriptions (*I.H.Q., Vol.* VIII) ; A Buddhist Manuscript of Gilgit (Ajitasena-vyakarananirdesa of Sthirabuddhi), (*I.H.Q. Vol.* VIII) ; Three Buddhist Manuscripts of Gilgit (*I.H.Q. Vols.* VIII, IX and XII) ; Brahmajalasutta in the light of Nagarjuna's exposition (*I.H.Q. Vol.* VIII) ; Doctrines of the Maha-sanghika School of Buddhism (*I.H.Q. Vol.* XIII) ; Doctrines of the Sarvastivada School (*I.H.Q. Vol.* XIV) ; Gilgit Mss. of the Vinaya Pitaka (*I.H.Q. Vol.* XIV) ; Dhammasangani, an analytical study (*I.H.Q. Vol.* XV) ; Place of Laity in early Buddhism (*I.H.Q. Vol.* XXI) ;

N.B. It was a matter of congratulation for the Department that the Government of Kashmir and Jammu placed all the Buddhist-Sanskrit Mss. discovered at Gilgit at the disposal of Dr. Dutt for editing and publishing them, the cost being borne by that Government. Of these several have already been published.

Dr. Sadananda Bhaduri, M.A., Ph.D.—Book : Nayaya-Vaisesika Metaphysics.

Dr. A. C. Banerjee, M.A., Ph.D.—Books : Sarvastivada School and its Literature; Some Aspects of Buddhist Culture from the Chinese Sources ; Narayanapari-pracha ; Mahadevi-vyakarana ; Pratimoksa-sutra ; Vasanta-tilaka ; Karmavakya ; Kavyadarsa.

Papers : Buddhist Ecclesiastical Punishment (*I.H.Q.* 1937) ; Sutrasa muccaya (*I.H.Q.* 1941).

Mr. D. L. Barua, M. A.—Books : Dictionary of Prakrit Inscriptional Words ; Divyavadan—an English Translation ; Cariyapitaka Commentary (*P.T.S.*)

Papers : A few Evidences of the age of Kathavatthu (*I.H.Q.* 1931) ; Some Notes on Nagarjunikond Inscriptions (*I.C. Vol.* 1) ; Buddhakhetta in the Apadana (*B.C.Law Volume*)

Mr. G. D. De, M.A.—Books : The Significance and Importance of the Jatakas ; Democracy in Early Buddhist Sangha ; Pali as a M. I. A. Speech and Its Influence on Bengali.

Mr. P. C. Majumdar, M.A.—Books : History of Early Mahayana Buddhist Literature ; Aryavalokitesvara-guna-karanda-vyuha.

APPENDIX XII

(A Select List of Books and Papers published by the Members of the Department of Comparative Philology)

Professor I. J. S. Taraporewala, Ph. D.—Books : Selections from Avesta (1922) ; Introduction to the Science of Language (1928).

Professor S. K. Chatterji, M.A., D.Litt. (Lond.)—Books : Origin and Development of the Bengali Language, 2 Vols. (*C.U.*), 1926.

Papers : The Study of Kol (*Cal. Rev.* 1926) ; Recursivs in New Indo-Aryan (*Indian Linguistics*, 1926) ; Calcutta Hindustani (*Ibid.*) ; Indo-Aryan and Hindi (1942).

Sukumar Sen, M.A., Ph.D.—Books : Sekasubhodaya (Edited with Introduction and Notes), 1928 ; The Use of the Cases in Vedic Prose (1929) ; A History of Brajabuli Literature (1935) ; A Comprehensive History of Bengali Literature, 3 vols. (in Bengali), 1940-46 ; The Old Persian Inscriptions of the Achaemenian Emperors (1941) ; Ruparama's Dharmamangala (Edited with assistance of P. Mandal, *M.A.*) 1945.

Papers : Ubhaya bhasarika of Vararuci (*Cal. Rev.* 1926), Notes on the use of cases in the Katha Samhita (*J.A.S.B.*1926). An outline Syntax of Buddhistic Sanskrit (*Journal of the Department of Letters*, 1927) ; Women's Dialect in Bengali (*Ibid.* 1928) ; The Language of Asvaghosa's Saundarananda (*J.A.S.B.*, 1930) ; Post-positives and periphrasis of the cases in MIA (*Indian Linguistics*) ; Nonfinite verbs and Periphrasis of Tenses and Moods in MIA (*Indian Linguistics*).

Sj. Krishnapada Goswami, M.A.—Papers : Linguistic Notes on Maimensing Dialect (*Indian Linguistics*, 1939) ; Non-Aryan Elements in the Place

Names of Bengal (*Ibid.*) ; Place-names of Bengal (*Journal of Letters*, 1940) ; Linguistic Notes on Chittagong Dailect of Bengali.

M. Ghosh—PAPERS : Prakrita Verses of the Bharata-Natya-Sastra (*Indian Historical Quarterly*, 1932) ; Mahararastri, a Later Phase of Sauraseni (*Journal of Letters*, 1933).

S. C. Chaudhury—PAPERS : Notes on Rangpur Dialect (*Indian Linguistics*, 1939.)

APPENDIX XIII

(A SELECT LIST OF RESEARCH PUBLICATIONS BY THE MEMBERS OF THE DEPARTMENT OF PSYCHOLOGY

Prof. G. Bose—BOOKS : The Concept of Repression ; Psychological interpretation of yoga sutras (with Publisher) ; Gita (in press) ; Reconstruction of Andhra chronology ; Swapna (Dream) ; Every day psychoanalysis ; Puran probesh ; Lal Kalo.

PAPERS : The aim and scope of Psychology (*I.J.P.* 7, 1932) ; Is perception an illusion ? (*I.J.P.* 1, 1926) ; A new theory of mental life, (*I.J.P.* 8, 1933) ; Opposite fantasies in the release of repression (*I.J.P.* 10, 1935) ; The reliability of psychoanalytic findings (*Br. J. Med. P.* 1923) ; Free-association method in psychoanalysis (*I.J.P.* 1, 1926) ; Sex in psychoanalysis (*I.J.P.* 2, 1927) ; Psychological outlook in Hindu Philosophy (*I.J.P.* 5, 1930) ; Duration of coitus (*Int. J.P.* 1937) ; All or None attitude in sex (*Samiksa*, 1, 1947) ; The nature and genesis of love (*Samiksa*, 1, 1947) ; Psycho-analytical Interpretation of Animal Behaviour (*Samiksa* 1, 1947) ; The paranoid ego (*Samiksa*, 2, 1948).

Dr. S. C. Mitra—BOOK : Manasamiksan.

PAPERS : A suggestion for a new theory of emotion (*I.J.P.* 8, 1933) ; Perception of form in indirect vision (*I.J.P.*, 2,1927) ; Some experiments on Fechner's paradox (*I.J.P.* 1, 1926) ; The concept of instinct, (*I.J.P.* 3, 1928) ; Psychology and life (*I.J.P.* 10, 1935) ; The spirit of the nations in peace and war (*I.J.P.* 2, 1927) ; Contributions of Abnormal psychology to normal psychology (*I.J.P.* 13, 1938) ; Need for a psychology to replace psychologies (*I.J.P.* 16, 1943) ; Laws in Psychology (*I.J.P.* 11, 1936) ; Is psychoanalytic procedure scientific ? (*Cal. Rev.* 1935).

Dr. G. Pal—PAPERS : Difference limen for continuous change of lifted wieght under different attitudes (*I.J.P.* 11, 12, 1936-37) ; Influence of atti-

tude on reaction time (*I.J.P.* 3, 1928) ; Vocabulary of a Bengali girl (*I.J.P.* 2, 1927) ; Studies in the values and relations of D.L. under different attitudes. (Jour. of the Dept. of Science, 1942.)

Mr. M. Ganguli—Papers : Visual percetion of geometrical figures (*I.J.P.* 3, 1928) ; Studies on the visual perception of geometrical figure—indirect vision (*I.J.P.* 14, 1939) ; A report on the time adjustment of the hipp chronoscope (*I.J.P.* 5, 1930).

Mr. M. Samanta—Papers : The induction of emotional states in Lab. Experiments)*I.J.P.* 9, 1934) ; Visual estimation of angles (*I.J.P.* 3, 1928) ; (With Mr. Ganguli) The norm of natural reaction time of a group of Bengalee boys (*I.J.P.* 1, 1926).

Mr. K. C. Mukerji—Papers : Interpretation of behaviour (*Cal. Rev.* 1924) ; The role of fear in primitive religion (*Visvabharati Quart.*, 1926) ; Sex in tantras (*J. Abn. & Social Psy.* 1926) ; The biological conception of libido (*A.J.P.* 1926) ; Conation and belief (*I.J.P.* 2, 1927) ; Is gregariousness an instinct ? (*Socil. Rev. Lond.* 1930) ; Vierord's Law (*B.R.J.P.* 1931) ; Duration of tactual sensation (*J. Exp. Psy.* 16, 1933) ; Elements and their synthesis (*I.J.P.* 7, 1932) ; The thermal sense (*I.J.P.* 11, 1936); Cutaneous Illusions. (*Dacca Univ. Studies—Sc. Section*) ; Instinct in the individual and the race (*Cal. Univ.* 1925) ; Other papers read at various congresses.

Mr. S. C. Sinha—Papers : Influence of sensory stimulus upon muscular work (*I.J.P.* 3, 1928) ; A number of papers read at the Indian Science Congress.

Mr. A. Datta—Papers : On the Definition of Psychology (*I.J.P.*, 12, 1937) ; Drawings of Children (*I.J.P.*, 10, 1935) ; Psychological Approach to Criminology (*Science & Culture*, 3, 1937) (with Dr. S. Mitra); Influence of colour on the estimation of area (*I.J.P.*, 14, 1939) . Quantitative Mental Estimate of Brightness Values (*I.J.P.*, 19 & 20, 1944 & 1945).

Mr. D. Ganguly—Papers : (*With late Mr. M. Banerji*) Reaction time as an indicator of onset of fatigue (*I.J.P.*, 11, 1937) ; Two papers at I. Sc. Congress.

Dr. N. N. Chatterji—Book : Nirgana Mana.

Papers : Nature of Paranoid Delusions (*Samiksa*, 1, 1947) ; Auto-erotism in Paranoia (*Samiksa*, 1, 1947) ; Ingestive and Excretory Megalomania (*Samiksa*, 2, 1948).

G. B. Kapat with Mr. C. Bhattacharyya—Papers : Memory & school progress (*I.J.P.*, 1943) ; Two papers at I. Sc. Congress.

Mr. S. P. Ghosh—Papers : Vocational Testing and its technique (*Cal. Rev.*) ; On the types of Intelligence (*I.J.P.*) ; Two Papers at I. Sc. Con.

Mr. S. K. Bose—PAPERS : The affective basis and continuous character of sensory qualities (*Cal. Rev., Sept.* 1937) ; Perception of form by passive touch (*I.J.P. Vol.* 1, 1926) ; Correlation between memory and accuracy of observation. Science & Culture (*Feb.* 1937) ; Language & Meaning (*C.U.Journal of Letters*, 1939) ; Symbolic Forms of Language in Physical & Mental Science (*I.J.P. Vol.* XVIII, 1943).

Mr. P. Bhattacharyya—PAPER : Religion & Mental Disorders (*I.J.P., Sept.* 1944).

Dr. N. De—PAPERS : National, Social and Domestic Aspects of Contraception, (*Medical Digest, April*, 1940) ; Married Spinsters (*I.J.P., Vol.* XXI, 1946) ; Some aspects of the Unconscious in Hysteria (*Samiksa, Vol.* I. *No.* 4) ; Neurological and mental symptoms produced by therapeutic doses of Rauwolfia serpentina and mepacrine hydrochoride (*Transactions of the Medical College Reunion, Vol.* VII, 1944-45) ; Clinical Toxicology of Rauwolfia Serpentina (*I.Sc. C.*, 1946) ; Marriage and Mental Diseases (*Calcutta M.J. July*, 1945) ; other Papers at I. Sc. Congress and in Journals.

A.G.P.—American Journal of Psychology. *Br. J.P.*—British Journal of Psychology. *Cal. Rev.*—Calcutta Review. *I.J.P.*—Indian Journal of Psychology. *Int. J.P.*—International Journal of Psychology. *C.M.G.*—Calcutta Medical Journal. *I.Sc. C.*—Indian Science Congress.

APPENDIX XIV

A SELECT LIST OF RESEARCH PUBLICATIONS BY MEMBERS OF THE DEPARTMENT OF SANSKRIT

Mahamahopadhyay Lakshman Sastri—BOOKS : Nyayakusumanjali (edited with Bardhamana's Commentary and Rucidatta's Glossary) ; Atmatattvaviveka (edited with Commentaries of MM. Sankara Misra, Raghunath Siromoni etc.) ; Nyaya-varttika—Tatparyaparisuddhi (edited with Bardhamana's Commentary) ; Sankara bhasya's Commentary Bhamati with explanatory translation ; Siddhantamuktavali with Dinakari and Ramarudri (edited with own independent interpretation) ; Siddhantalesa-Samgraha with its Commentary (edited).

MM. Sitaram Sastri—BOOKS : Rik Samhita (edited with Sayana Bhasya and his own annotations)

MM. Pramathanath Tarkabhushan—BOOKS : Mayavada ; Sankhyakarika with Aniruddha's Commentary and an original Sanskrit gloss.;

Hemadri's Caturvargacintamani (*Vol.* IV—*Bibliotheca Indica Series*); Adharchandra Mukerjee Lectures on Gaudiya Vaisnavism (*C.U.*).

Kokileswar Sastri, Vidyaratna, Kavyatirtha, M.A., M.A.O.S.—Books: Outlines of Vedanta Philosophy (*C.U.*); Advaita-Vada (in Bengali) (*C.U.*); Introduction to Advaita Philosophy (*C.U.*); Upanishader Upadesh (in Bengali, in 3 volumes); The Philosophy of the Rig-Ved; Sreegopal Basu Mallick Fellowship Lectures (*C.U.*).

Papers: Articles to the Memorial volumes presented to MM. Kuppuswami Sastri, Dr. Ganganath Jha, Prof. K. B. Pathak and to Dr. Lanman of the Harvard University.

Mahamahopadhyay Phanibhushan Tarkavagish—Books: Bengali Translation & Exposition of Gautama's Nyayasutra with Vatsyayana's *Bhasya* thereon in 5 volumes (*Published by the Bangiya Sahitya Parisat, Cal.*); Nyaya-Paricaya (in Bengali).

Pt. Panchanan Tarkavagish—Books: Nyayamanjari, Parts I & II. (*Published by Cal. University*) (Bengali Translation); Advaita-brahmasiddhi (edited), *C. U.*

MM. Anantakrishna Sastri—Books: (In Sanskrit) Brahmasutra with Sankara's Bhasya, Bhamati, Kalpataru, Parimala (*Nirnayasagar Press*); Vedantaparibhasa with an original commentary (*C.U.*); Nyayamrita Advaitasiddhi (edited in Cal. Sanskrit Series); Brahmasutrabhasya with nine commentaries including his own (Cal. Sanskrit Series); Sariraka-Mimansa Bhasyavarttika (Asutosh Sanskrit Series No. 1)—jointly edited with Pt. Asoknath Sastri.

Dr. Manomohan Ghosh, M.A., Ph.D.—Books: Karpuramanjari (critically edited with notes); Paniniyasiksha (edited critically); Abhinaydarpanam (Cal. Sanskrit Series).

Professor Prabhat Ch. Chakravarty, M.A., Ph.D.—Books: Linguistic Speculations of the Hindus; Philosophy of Sanskrit Grammar (*C.U.*).

MM. Bhagavat Kumar Sastri, M.A., Ph.D.—Book: Bhakti Cult.

Dr. Pasupatinath Sastri, M.A., Ph.D.—Books: An Introduction to Purvamimansa; Sayana's Commentary on the Rigveda Bhasya.

MM. Sitikantha Vacaspati—Book: Pracina Bharate Dandaniti (*Jogendra Ghosh Research Thesis of the University*).

MM. Gurucharan Tarkadarsanatirtha—Book: Sabdasakti Prakasika, Part I, edited with notes (*Published by Cal. Uni.*)

MM. Professor Vidhushekhara Bhattacharya Sastri—Books: Agamasastra of Gaudapada (critically edited with English translation & notes pub-

lished by the Calcutta University); Agamasastra of Gaudapada with original Sanskrit Commentary (in the Press of the Calcutta University); Nyayapravesa of Dinnaga (Tibetan version critically edited in the Gaekwad Oriental Series); Instructions of Asoka (Rahulovada) (*C.U.*); Adharchandra Mukherjee Lectures on Buddhism.

Professor Satkowri Mukherjee, M.A., Ph.D.—BOOKS: The Buddhist Philosophy of Universal Flux (*C.U.*); The Jaina Philosophy of Non-Absolutism; A Critique of Organ of Knowledge.

PAPERS: The Concept of Ajnana in the Vedanta Philosophy (*Indian Culture*, 1936); The Nyaya-Vaisesika System of Philosophy in the Ramkrishna Centenary Volume (*Cultural Heritage of India*); Introduction to the English Translation of the Bhasapariccheda with the Muktavali by Swami Madhavananda; A Dissertation on the Identity of the Author of the Dhvanyaloka (*B.C. Law Volume* I); A Supplementary note on the previous Dissertation (*Indian Culture*); The Doctrine of Non-ego in Buddhism (*The Mahabodhi Journal*).

BOOKS: Sanskrit—Madhyamika darshana vimarsah (A critique of Madhyamika Philosophy of Nagarjuna); Pracinalankara nibandhesa rasa-prasangah.

Asutosh Bhattcharya Sastri, M.A., P.R.S., Ph.D.—BOOKS: Studies in Post-Sankara Dialectics (*C.U.*); Vedanta-darsana—Advaitavad Vedanta Cintar Kramavikasa, Vol. I, *C.U.*); Vedanta-darsana, Vol. II (Vedanta-pramana-parikrama)—In the *C.U. Press*; Vedanta-darsana (Vol. III—Vedanta-tattva-jijnasa—to be published by the Cal. University.

PAPERS: Sankara's Epistemology (*read in the Dacca Session of the All India Philosophical Congress*); Is Vedantism Mysticism? (*Patna Session of the Philosophical Congress—Vide Proceedings*).

Mahamahopadhyay Pt. A. Chinnaswami Sastry,—BOOKS: Sara Vivechini (*Commentary on Mimamsa Nyaya Prakasa, Printed at the Chowkhamba Press, Benares in* 1925); Vidhi Tatwa Sangraha (*Printed in the Malaviya Commemoration Vol.*, 1932); Introduction to Tandya Maha Brahmana (*Printed at the Chowkhamba Press, Benares in* 1935); Tippani on Madhwa Tantra Mukhamardana (Sandarbha Vivarana—*Printed at the Hitchintak Press, Benares in* 1941); Tantra Siddhanta Ratnavali (*Printed at the B.H.U. Press in* 1944)

EDITED BOOKS: Mimansa Kaustubha in 3 Parts (*Chowkhamba Press*); Apastamba Grihya Sutra (*Chowkhamba Press*); Apastamba Dharma Sutra with explanatory notes (*Chowkhamba Press*, 1932); Baudhayana Dharma Sutra with explanatory notes (*Chowkhamba Press*, 1934); Brihati (*Commen-*

tary on Sabara Bhashya with Rijuvimala) ; Tandya Maha-Brahmana in 2 parts (*Chowkhamba Press*) ; Satapatha Brahmana, Part I (*Chowkhamba Press*, 1937) ; Tautattiamata-tilakam in 3 parts (*Saraswati Bhawan Series*).

PAPERS : Kumarila Bhatta & Prabhakara Misra (*read in the Oriental Conference*) ; Udaharana Paripati of Sabara Bhashya (*Published in Sir Ganganath Jha Commemoration Vol.*) ; Details of Apastamba Srauta Sutra (*Printed at the R.B.K.V., Rangswami Iyengar's Commemoration Vol.*).

Kunja Govinda Goswami, M.A.—MONOGRAPHS : Pragaitihasik Mohenjodaro (in Bengali, (*C.U.*) ; A Monograph in English on Bangarh (ancient Kotivarsa) based on four seasons' excavations there (*Published by the C.U. as the Asutosh Museum Memoir No. I*) ; 'Rajavijaya Natakam' edited in colaboration with Dr. R. C. Majumdar, *M.A., Ph.D.*

PAPERS : Two Coins from Cachar (*I.H.Q., Vol.* II, *No.* 3) ; The Satak Copper plate grant of King Rama Sinha II, (*J.A.S. B.—New Series* Vol. XXV, No. I) ; A newly discovered Inscription of Kanishka deciphered and published for the first time in *Cal. Rev., July*, 1934 : Excavation at Bangarh (Report for 1937-38), *Cal. Rev., Nov.*, 1938 ; Gautima Plates of Ganga Indra Varman, Year at (*Epigraphia Indica, Vol.* XXIV) ; Kosam Inscription of (the reign of) Kanishka, Year 2 (*Epigraphia Indica, Vol.* XXIV).

Sri Krishna Gopal Goswami, M.A., P.R.S., Sastri, Smriti-Mimansatirtha—BOOKS : (In English) Development of the Law of Marriage in Smriti Literature (*C.U.*) ; Hindu Law of Suretyship (*Jogendra Ghosh Research Thesis*, 1937) ; Hindu Conception of Sin and Expiation (Thesis approved for Premchand Roychand Studentship in Arts, 1943, Calcutta University) ; Judiciary and Penal System in Ancient India (*to be published*) ; Sannyasa Asrama (Thesis approved for Rani Ramrakshi Gold Medal, 1941, Cal. University).

PAPERS : Philosophy of the Pancayajna (*Cal. Rev.*, 1937) ; The Hindu Conception of Law (1938, *Nov. Cal. Rev.*) ; Question of Promiscuity in Ancient India (*Cal. Rev.*, 1939 ; An Enquiry into Ideals of Hindu Marriage (*Cal. Rev.*) ; History of Hindu Legal Literature (*Contributed to the History of Sanskrit Literature, Vol.* II) ; Mimansa Maxims as applied to Hindu Law (*Contributed to the History of Sanskrit Literature, Vol.*II).

Janakivallabh Bhattacharya, Ph.D.—BOOK : Negation (Doctarate Dissertation).

PAPERS : Kumarila's Conception of Soul (*Phil. Quarterly*) ; Is not Being deduced from Being ? (*Proceedings of Oriental Con.*).

Sri Bishnupada Bhattacharya, M.A., P.R.S.—BOOKS : A Study in Language and Meaning (*Thesis approved for the award of the Premchand Roy-*

chand Studentship in Arts of the Calcutta University for 1945) : Yaska's Nirukta and the Science of Etymology : An Historical and Critical Survey (*Thesis submitted for the Griffith Memorial Prize in Letters for* 1947).

PAPERS : An Historical and Critical Survey of the Dhvani Theory (*Indian Culture, Vol.* XI, *No.* 4) ; On the Validity of Smrti Canons (*Indian Culture,* XII, 1) ; Some More Popular Maxims (*Indian Culture, Vol.* XII, 2) ; Padakara—A Forgotten Grammarian ? (*Indian Culture, Vol.* XII, 2) ; Yaska and Sakalya (*Indian Culture, Vol.* XII, 3) ; Suggestion *versus* Inference in Sanskrit Aesthetics (*Indian Culture, Vol.* XIII, 1) : A Critique of Hemchandra's Kavyanusasana (*Indian Culture, Vol.* XIII, 4) ; Studies in the Dhvanyaloka (*Indian Culture, Vol.* XIV, 3) ; The future of Sanskrit Studies (*Cal. Rev., June,* 1947) ; The Riti School and Anandavardhana's Dhvani Theory (*to be published in the Proceedings of the forthcoming session of the All India Oriental Conference*) ; Vaidika-Nighantur Yaska-krito na va ? (*Sanskrit Sahitya Parisat Patrika Vol.* XXIX. Nos. 4, 5, 6 —*in Sanskrit*).

Pandit Amarendra Mohan Kavya-Vyakaran-Tarkatirtha—BOOKS : Kavya-Prakasha Sapta-Padarthi (*Cal. Sanskrit Series*) ; Nyaya-Darshana with the Bhashya of Vatsyayana and Uddyotakara's Varttika on the same and Vachaspati Mishra's Tatparya Tika—a commentary to the Vartika (*Cal. Sans. s.*).

APPENDIX XV

A SELECT LIST OF RESEARCH PUBLICATIONS BY MEMBERS OF THE DEPARTMENT OF

ARABIC AND PERSIAN

Dr. M. Z. Siddiqi—PAPERS : An Early Arabic Author on Indian System of Medicine (*Cal. Rev.*, 1931) ; The Services of the Muslims to Sanskrit Literature (*Cal. Rev.*, 1933) ; Poets in Early Arabia (*Cal. Rev.*, 1933) ; Fairs in Early Arabia (*Proceedings of the All India Oriental Conference, Lahore*) ; Islamic Culture and its basic principles (*Proceedings of Oriental Conference, Hyderabad,* 1941) ; The importance of Arabic and Persian Literatures and Some of their special features (*All India Oriental Conference, Nagpur,* 1946) ; The Criticism of Historical Reports among the Muslims (*B. C. Law Volume, Part* 1 ; Al-Say ut-Hathith fi Tadwin-al Hadith (*a booklet in Arabic on the special features of Hadith Literature—Dairatul-Marif, Hyderabad*) ; A Critical Edition of the Tarikh Harat (*Persian text, pp.* 786, *with Intr. and critical notes, Imp. Library,*

Cal. 1944); A Critical Edition of Ferdausul-Hikmat—the earliest compendium compiled in Arabic in 850 A.D.—Arabic-text, pp. 620; Int. in Arabic, pp. 32 (*Berlin*, 1928).

M. Ishaq, M.A., Ph.D. (Lond.)—Books: Sukhanvaran-i Iran da Asr-i Hazir in 2 volumes (in Persian) 1933 & 1937 (The author received the decoration 'Nishanillmi' from the Iran Government in recognition of this work); Modern Persian Poetry, 1943 (*Ph.D. Thesis in the University of London*); Catalogue of the Arabic Mss. in the collection of the Royal Asiatic Society of Bengal (*In collaboration with others*); *History of Hazrat by Muinuddin Isfizar written in A.D.* 1492. (*Edited for the Royal Asiatic Society of Bengal*); Haft Iqlim (*In Persian*), Ready for the Press (*Geographical and biographical work written by Amin Ahmed Razi in A.D.* 1593. *About* 500 *pages. Edited for the Royal Asiatic Society of Bengal*).

Papers: Gilaki Dialect (*Journal, Department of Letters, C.U., Vol.* XXIII, 1933); Quarratu'l-'Ayn, a Babi Martyr (*Cal. Rev.*, 1942); Minichihri of Damghan, a poet of the Ziyaro-Ghaznavid period (A critical study of the biography of the poet and his Divan) (*Indian Culture*, 1943); Rabi'a of Quzdar, the First Iranian Poetess of Neo-Persia. (*Islamic Culture*, 1943); Parvin-i I'tisami: An eminent Poetess of Modern Iran (*Islamic Culture*, 1943); Regeneration of Iran: Part played by the Poets (*Dinshah J. Irani Memorial Volume, Bombay*, 1943); Rudaki, the Father of the Neo-Persian Poetry (*B.C. Law-Volume, Part* II, 1946); Pre-Islamic Literature of Iran-Old Persian, Avestan and Pahlavi, Vol. I, No. 3 (*Indo-Iranica, Calcutta*, 1947).

Masud Hasan—Books: Prose Literature during the Umayyad—*Urdu* (*Ma'arif, Ajamgarh, July*, 1942); The date of the composition of the Silsilatu'l-Zahab—a Persian work by Jami—*Urdu* (*Ma'arif, Ajamgarh, July*, 1946); Ulayya—A less-known Abbasid Princess—(*Islamic Culture, Hyderabad, April*, 1947); Ibn Hazm and his Jamharatu'l-Ansab—(*J.R.A.S., Bengal, Vol.* XII, *May*, 1947).

APPENDIX XVI

(A Select List of Research Publications of the Department of Pure Mathematics)

PURE MATHEMATICS

Prof. Ganesh Prasad, D.Sc.—Papers: On the function θ in the mean-value theorem of the Differential Calculus (*Commemoration volume of the Bull. of the Cal. Math. Society*, 1929). On the differentiability of the

integral function (*Crelle's Journal, Vol.* 160, 1929). On the Zeros of Weierstrass's non-differentiable function (*Proc. of Benares Math. Soc., Vol.* XI, 1930). On the nature of θ in the mean value theorem of the Differential Calculus (*Bull. of American Math. Soc., Vol.* XXXVI, 1930). On the summation of infinite series of Legendre's functions—Ist Paper (*Bull. Cal. Math. Soc., Vol.* XXII, 1930). On Non-Orthogonal systems of Legendre's functions (*Proc. Benares Math. Soc., Vol.* XII, 1931). On the summation of infinite series of Legendre's function- (2nd Paper) (*Bull. Cal. Math. Soc., Vol.* XXIII, 1931). On the differentiability of the indefinite integral and certain suummability criteria (*Address delivered in* 1932 *to the Mathematical and Physical section of the Science Congress*). On Lebesgue's integral mean-value for a function having a discontinuity of the second kind (*Proc. Benares Math. Soc., Vol.* XIV, 1933). On the Lebesgue's absolute integral mean-value for a fn having a discontinuity of the second kind (*Special Memorial Vol. of the Tohoku Math. Journal in honour of Prof. Hayashi*, 1933).

BOOKS : Mathematical physics and Differential equations at the beginning of the 20th Century ; Some great Mathematicians of the 19th Century (2 Volumes published) ; An introduction to Elliptic functions, 1928 ; Spherical Harmonics (I & II) 1930-32 ; Six lectures on recent researches about the mean-value theorem of the Differential Calculus ; Six lectures on recent researches in the theories of Fourier's Series, 1928.

Prof. Syamadas Mukerjee, M.A., Ph.D.—PAPERS : Geometrical theory of a Plane Non-Cyclic Arc, finite as well as infinitesimal (*Journal, Asiatic Soc. of Bengal, New Series, Vol.* IV, 1908). New methods in the Geometry of a Plane Arc—I, Cyclic and Sextactic points : (*Bull. Cal. Math. Soc., Vol.* I, 1909). New methods in the Geometry of a Plane Arc—II. Cyclic points and normals (*Bull. Cal. Math. Soc., Vol.* X, 1919). Generalized form of Böhmer's Theorem for an elliptically curled Non-Analytic oval (*Communicated to Mathematische zeitschrift, August*, 1928). Geometrical Investigations on the correspondence between a Right-Angled triangle, a Three-Right-Angled Quadrilateral and a Rectangular Pentagon in Hyperbolic Geometry (*Bull. Cal. Math. Soc., Vol.* XIII, 1922) ; General Theorem of Co-Intimacy of Symmetrics of a Hyperbolic Triad (*Bull. Cal. Math. Soc., Vol.* XVII, 1926). A Note on the Stereo-scopic Representation of Four-dimensional space (*Bull. Cal. Math. Soc., Vol.* IV, 1912). Reply to Prof. Bryan's Criticism (*Bull. Cal. Math. Soc., Vol.* VI, 1914). A Note on current views of Operations through the Fourth Dimension (*Bull. Cal. Math. Soc., Vol.* IX, 1917). Some General Theorems in the Geometry of a Plane Curve (*Sir Asutosh Mookerjee Silver Jubilee Volumes* II, 1922. *Cal. Univ. Publications*). A General Theory of Osculating Conics I

(*Journal, Asiatic Soc. of Bengal, New Series, Vol.* IV, 1908). A General Theory of Osculating Conics II (*Journal Asiatic Soc. of Bengal, New Series, Vol.* IV, 1908). On rates of Variation of the Osculating Conic (*Bull. Cal. Math. Soc., Vol.* I, 1909). Note on T. Hayashi's paper on the Osculating Ellipses of a Plane Curve (*Circolo Mate-matico di Palermo, Tomo LI*, 1927).

Prof. B. M. Sen—Brochure : Light and Matter (*Ind. Academy of Sciences, Bangalore*).

Dr. R. N. Sen, M.A. (Cal.), Ph.D. (Edin.)—Papers : On a type of three-dimensional Space Compatible with Clifford's parallelism (*Tohoku Math. Journal, Vol.* 42, *Part* II, 1936). On parallelism in Riemanian Space I (*Bull. Cal. Math. Soc., Vol.* 36, *No.* 3, 1944) ; On parallelism in Riemanian Space II (*Bull. Cal. Math. Soc. Vol.* 37, *No.* 4, 1945). On parallelism in Riemanian Space III (*Bull. Cal. Math. Soc., Vol.* 38, *No.* 4, 1946). Parallel displacement and Scaler product of vectors (*Proc. of the National Institute of Sciences of India, Vol.* 14, *No.* 1, 1948) ; On one Connection between Levi-Civita parallelism and Einstein's teleparallelism (*Proc. of Edinburgh Math. Soc.* 2, *Vol.* 2).

(*N.B.*—Reference of this paper has been made by Prof. D. J. Struik in his book on 'Theory of Linear Connections', published by Julius Springer, Berlin, in 1934).

Book : Lectures on Geometry, Parts I & II by Levi and R. N. Sen (*Cyclostyled by the University of Calcutta*).

Late M. M. Ghosh, M.Sc.—Paper : On a class of transversals, cutting the sides of a triangle (*Bull. Cal. Math. Soc., Vol.* XIX, *No.* 4, 1928).

Mr. H. P. Banerji, M.Sc.—Papers : On an application of the Theory of Functions to Dynamics (*Bull. Cal. Math. Soc., Vol.* XVIII) ; On the summability (C.I.) and strong summability (C.I.) of certain divergent Legendre's Series (*Bull. Cal. Math. Soc., Vol.* XIX, *No.* 4, 1928). On the summability (C.I.) of Legendre Series of a function at a point where the function has a discontinuity of the second kind ((*Bull. Cal. Math. Soc., Vol.* XXI, *No.* 1, 1929). On Peano's function (*Bull. Cal. Math. Soc., Vol.* XVI, *No.* 1).

Dr. S. M. Ganguli, D.Sc.—Books : Theory of Plane Curves (2 vols.), C. U. ; Geometry of Hyper-spaces, Vols. I & II (*C.U.*).

Papers : Angle-concept in n-dimensional Geometry (*Bull. Cal. Math. Soc., Vol.* IX).

Mr. N. K. Mazumdar, M.A.—Papers : Aryyabhatta's rule in relation to indeterminate equations of the 1st degree (*Bull. Cal. Math. Soc.*, 1915). On the use of Ritz's method for finding the vibration-frequencies of heterogeneous strings and membranes (*Bull. Cal. Math. Soc., Vol.* X, 1918-19).

Mr. M. R. Gupta, M.Sc.—PAPER : On substitution and equivalence of two forms (*Bull. Cal. Math. Soc., Vol.* XXI, 1929).

Dr. H. D. Baychi, M.A., Ph.D.—BOOKS : A Course of Geometrical Analysis (1926).

PAPERS : Vector Theory of Affine Transformations (*Bull. Cal. Math. Soc.*, 1939, *No.* 1) ; Vector Theory of Non-Coplenar Forces (*Ibid.*, 1939, *No.* 2) ; Normal Complex of a Rigid Body (*Ibid.*, 1939, *No.* 3) ; Cylendroids and other kindred surfaces (*Ibid.*, 1940) ; Geometrical Note on Vander Waal's equations (*Association for the Cultivation of Science*, 1940) ; On a class of difference-equations, involving the functions of Legendre, Bessel and other functions (*Ind. Math. Society*, 1939) ; Note on Cyclides (*Ibid.*, 1940) ; Note on Bicircular Quantities (*Ibid.*, 1941) ; Note on a class of functional Equations (*Sankhya*) : ; Bilinear Transformation of a bicircular quartic (*U. N. Dhar & Sons*) ; Notes on the Conics of double osculation of a cubic curve (*Accepted for publication by the National Academy of Sciences, Allahabad*); Circular cubics and bicircular quartics (*Accepted for publication by the National Academy of Sciences, Allahabad*).

Mr. A. C. Chowdhury, M.Sc.—PAPERS : On Reducible Hyper-elliptic Integrals (*Bull. Cal. Math. Soc., Vol.* XXVII, 1935) ; Affine Rolling of the first kind (*Bull. Cal. Math. Soc., Vol.* XXX, 1938) ; On Affine Motion (*Bull. Cal. Math. Soc., Vol.* XXXI, 1939) ; On the 4-web of the Projective Lines of Curvature (*Bull. Cal. Math, Vol.* 34, 1942) ; On a case of the Cross-ratio system of a 3-web (*Bull. Cal. Math. Soc., Vol.* 34, 1942) : On 2-webs of curves in Rn. (*Bull. Ind. Math. Soc., Vol.* VIII, 1944)) ; The invariants of webs of curves in Rn. (*Bull. Cal. Math. Soc. Vol.* XXXVI, 1944) ; On Steiner's polygons in a web (*Bull. Ind. Math. Soc., Vol.* VI, 1942).